

Panasonic[®]

Operating Instructions

Digital Camera



Model No. **DMC-TZ2**
DMC-TZ3



LEICA DC VARIO-ELMAR



Before use, please read these instructions completely.

This manual is based on the DMC-TZ3 model. Product illustrations and screens may vary.

Dear Customer,

We would like to take this opportunity to thank you for purchasing this Panasonic Digital Camera. Please read these Operating Instructions carefully and keep them handy for future reference.

Information for Your Safety

WARNING:

TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK OR PRODUCT DAMAGE,

- DO NOT EXPOSE THIS APPARATUS TO RAIN, MOISTURE, DRIPPING OR SPLASHING AND THAT NO OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHALL BE PLACED ON THE APPARATUS.
- USE ONLY THE RECOMMENDED ACCESSORIES.
- DO NOT REMOVE THE COVER (OR BACK); THERE ARE NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

Carefully observe copyright laws.

Recording of pre-recorded tapes or discs or other published or broadcast material for purposes other than your own private use may infringe copyright laws. Even for the purpose of private use, recording of certain material may be restricted.

IF THE POWER CORD OF THIS EQUIPMENT IS DAMAGED, IT MUST BE REPLACED WITH AN ELECTRICALLY APPROVED POWER CORD.

THE SOCKET OUTLET SHALL BE INSTALLED NEAR THE EQUIPMENT AND SHALL BE EASILY ACCESSIBLE.

CAUTION

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

Warning

Risk of fire, explosion and burns. Do not disassemble, heat above 60 °C or incinerate.

Product Identification Marking is located on the bottom of units.

-If you see this symbol-

Information on Disposal in other Countries outside the European Union

This symbol is only valid in the European Union.

If you wish to discard this product, please contact your local authorities or dealer and ask for the correct method of disposal.



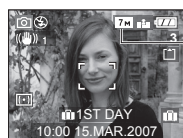
About the battery charger

CAUTION!

- DO NOT INSTALL OR PLACE THIS UNIT IN A BOOKCASE, BUILT-IN CABINET OR IN ANOTHER CONFINED SPACE. ENSURE THE UNIT IS WELL VENTILATED. TO PREVENT RISK OF ELECTRIC SHOCK OR FIRE HAZARD DUE TO OVERHEATING, ENSURE THAT CURTAINS AND ANY OTHER MATERIALS DO NOT OBSTRUCT THE VENTILATION VENTS.
- DO NOT OBSTRUCT THE UNIT'S VENTILATION OPENINGS WITH NEWSPAPERS, TABLECLOTHS, CURTAINS, AND SIMILAR ITEMS.
- DO NOT PLACE SOURCES OF NAKED FLAMES, SUCH AS LIGHTED CANDLES, ON THE UNIT.
- DISPOSE OF BATTERIES IN AN ENVIRONMENTALLY FRIENDLY MANNER.

Note

Example screens displayed in this manual are for DMC-TZ3 model.

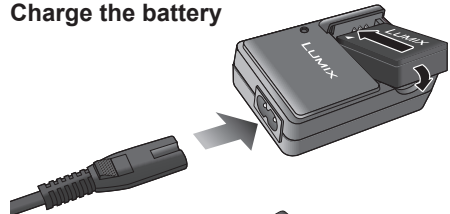
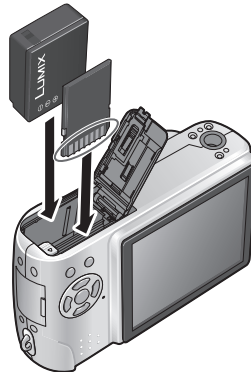

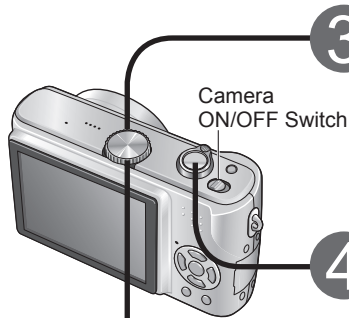




DMC-TZ2: 6M

Quick start guide

The battery is not charged when the camera is shipped. Charge the battery and Set the clock before use.

When you do not use the card (optional), you can record or play back pictures on the built-in memory (P.26).

- 1 Charge the battery**

 - 2 Insert the battery and the card**

 - 3 Set the mode dial to** 


Camera ON/OFF Switch
 - 4 Press the shutter button and take pictures**

- To play back the pictures**
1. Set the mode dial to 
 2. Select the picture you want to view.
- Previous Next

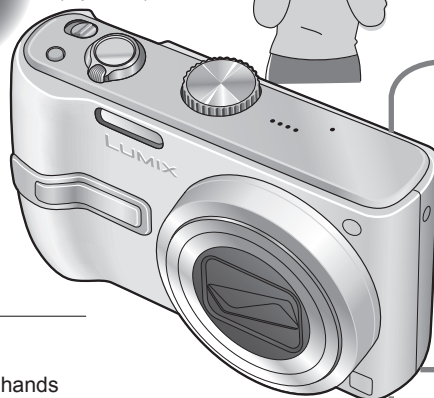
Record, view, save those precious moments.

Record

(P.24)



SD memory card
(Optional)



- Cards may be inserted directly into devices with SD memory card slots.



Alternatively,
connect with AV
cable (supplied)



On TV screen

View (Playback) on large screen

(P.79)

Print at home, or at a digital photo centre

(P.68, 76)



Zoomed-in pictures

Close-up pictures of people
in distance
[10x optical zoom] (P.27)



Clear pictures

Prevents blurring from shaky hands
[Optical Image Stabilizer] (P.39)



Beautiful pictures

Dark places, moving subjects
[Intelligent ISO] (P.46)



Motion pictures

Capture moving scenes
[Motion Picture Mode] (P.47)
Create photos (still pictures) from your favourite motion
pictures (P.63)



Holiday pictures

Useful features for travel – 'TRAVEL DATE' (P.48)
'WORLD TIME' (P.49)
'CLIPBOARD' (P.58)



Alternatively,
connect with USB
connection cable
(supplied)



With your printer

Connect directly to easily print pictures at home (P.76)
Use a PictBridge-compatible printer.

At digital photo centre

Give card to shop assistant to print pictures. (P.68)



Alternatively,
connect with USB
connection cable
(supplied)



Save and enjoy your pictures!

On computer

Send by e-mail, save to hard disk.
Print out pictures.



Alternatively,
connect with AV
cable (supplied)



With DVD recorder

Save to DVD or hard disk

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Before use

Read first

■ Do a test shot first!

- Check first to see if you can take pictures and record sounds (motion pictures/pictures with audio) successfully.

■ We will not compensate for failed/lost recording or for direct/indirect damage.

- Panasonic will not provide compensation even if damage is caused by faults with camera or card.

■ Certain pictures cannot be played back

- Pictures edited on a computer
- Pictures taken or edited on a different camera
(Pictures taken or edited on this camera may also not be able to be played back on other cameras)

■ Software on the CD-ROM supplied

The following actions are prohibited:

- Making duplicates (copying) for sale or rent
- Copying onto networks

■ LCD monitor characteristics

Extremely high precision technology is employed to produce the LCD monitor screen. However there may be some dark or bright spots (red, blue or green) on the screen. This is not a malfunction. The LCD monitor screen has more than 99.99% effective pixels with a mere 0.01% of the pixels inactive or always lit. The spots will not be recorded on pictures on the built-in memory or a card.

To prevent damage and faults

■ Avoid shocks, vibration, and pressure

- Avoid exposing the camera to strong vibration or shock; e.g. dropping or hitting the camera, or sitting down with the camera in your pocket.
- Do not press the lens or the LCD monitor.

■ Do not get the camera wet or insert foreign objects

- Do not expose the camera to water, rain, or seawater.
(If camera gets wet, wipe with a soft, dry cloth. Wring cloth thoroughly first if wet with seawater, etc)
- Avoid exposing lens and socket to dust or sand, and do not allow liquids to leak into gaps around buttons.

■ Avoid condensation caused by sudden changes in temperature and humidity

- When moving between places of different temperature or humidity, place camera into a plastic bag and allow to adjust to conditions before use.
- If the lens clouds up, switch off the power and leave for about two hours to allow camera to adjust to conditions.
- If the LCD monitor clouds up, wipe with a soft, dry cloth.

■ When transporting

- Switch off power.
We recommend using a genuine leather case (DMW-CT3, optional).
- Lens
 - Do not leave in direct sunlight.
 - If dirty, clean with soft, dry cloth.

Standard accessories

Part numbers are as of January 2007

□ Battery Pack

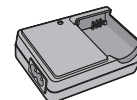
CGA-S007E
(P. 14)



(referred to in this manual as 'battery')

□ Battery Charger

DE-A46A
(P. 14)



(referred to in this manual as 'charger')

□ Battery Carrying Case

VYQ3680
(P. 91)



□ AC Cable

K2CJ2DA00008
(P. 14)



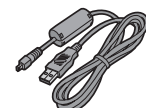
□ Strap

VFC4090
(P. 12)



□ USB Connection Cable

K1HA08CD0007
(P. 74, 76)



□ AV Cable

K1HA08CD0008
(P. 79)



□ CD-ROM



- Cards are optional. You can record or play back pictures on the built-in memory when you are not using a card. (P.26)
- Consult the dealer or your nearest servicentre if you lose the supplied accessories. (You can purchase the accessories separately.)

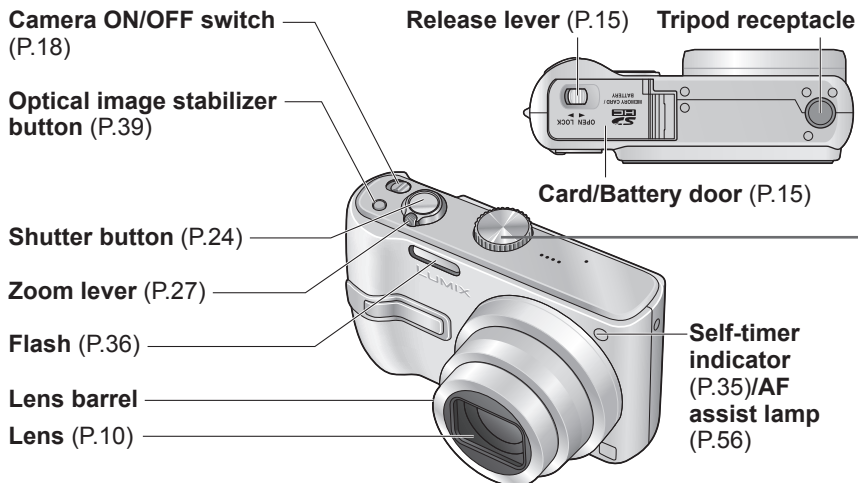
SDHC memory cards

- New standards set in 2006 by SD Association for high-capacity memory cards exceeding 2GB.
- Can be used on SDHC memory card-compatible devices, but not on devices only compatible with SD memory cards.

The following software on the CD-ROM is referred to in this manual as 'supplied software'.

- LUMIX Simple Viewer
- PHOTOfunSTUDIO -viewer-

Names of parts



Speaker (P.22)

Microphone
(P.47, 53, 70)

LCD monitor
•Checking remaining battery/
memory capacity, etc (P.25)
•Changing display (P.33)
•Display contents list (P.80)

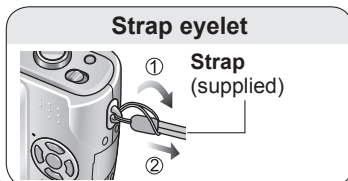
Status indicator (P.15, 24)

**DISPLAY/LCD MODE
button** (P.33, 34)

**FUNC (Quick setting P.57)/
delete (P.32) button**

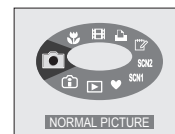
DIGITAL/AV OUT socket
(P.74, 76, 79)

DC IN socket (P.74, 76)
•Always use a genuine Panasonic
AC adaptor (DMW-AC5G: optional).



Mode dial

Align to correct mode →



NORMAL PICTURE mode
Take pictures (P.24).

INTELLIGENT ISO mode
Take pictures according to motion
and brightness of subject (P.46).

PLAYBACK mode
View/edit pictures previously
taken (P.31, 61)

SIMPLE MODE
For beginners (P.28).

SCENE mode
Take pictures according to scene
(P.40).

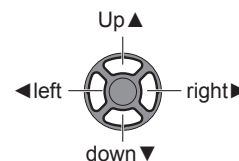
CLIPBOARD mode
Take/view pictures as memos
(P.58).

PRINT mode
Print (P.76).

MOTION PICTURE mode
Take motion pictures (P.47).

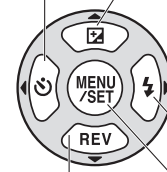
MACRO mode
Take close-up pictures (P.46).

**Up/down/left/right
selection**



In this manual, direction buttons
to be pressed will be shown in
white, or with ▲▼◀▶.

Self-timer (P.35)



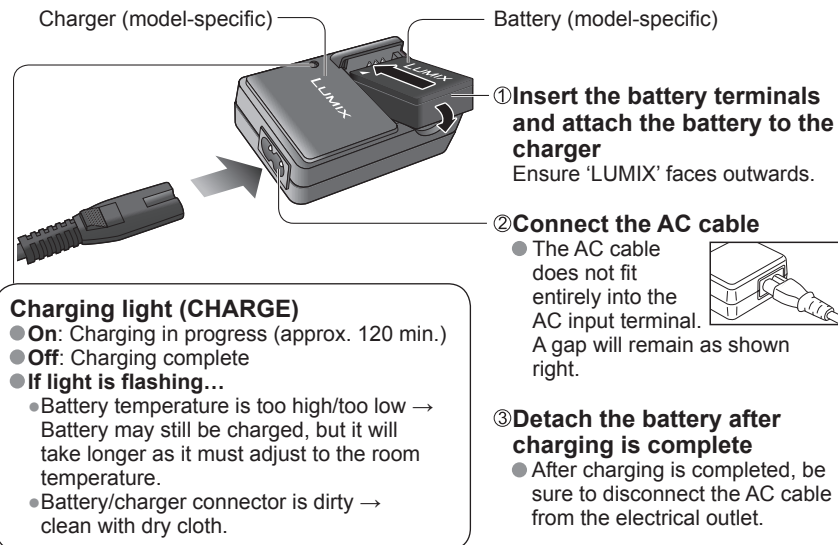
**View previously
taken picture
immediately
(Review)** (P.30)

- Exposure compensation** (P.38)
- Auto bracket *** (P.38)
- White balance fine adjustment** (P.50)
- Backlight compensation** (P.28)
- Flash** (P.36)
- MENU/SET**
(menu display/set) (P.18)

* DMC-TZ3 only

Charging battery

Always charge before first use! (not sold pre-charged)



■ Approximate battery life

Number of pictures:

270 [300 *²] (at 30-sec intervals) *¹ (equivalent to approx. 135 [150 *²] mins)

*¹ Values based on CIPA standards. (P.91)

(Number reduced if intervals longer – 67 [75 *²] pictures if 2-minute intervals)

Playback time: Approx. 260 [280 *²] mins

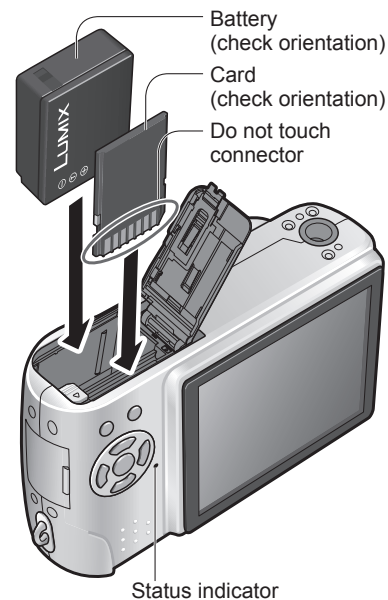
Above figures may be reduced if intervals between recording are longer; if flash, zoom, or POWER LCD are used frequently; or in colder climates (depends on actual usage).

*² DMC-TZ2

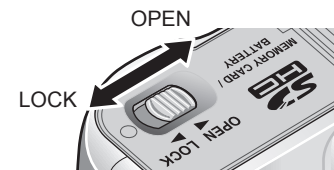
Note

- Battery will be warm during charging and for some time thereafter.
- Battery will run out if not used for long periods of time, even after being charged.
- Charge the battery with the charger indoors (10 °C-35 °C).
- Do not disassemble or modify the charger.
- Please purchase a new battery if battery life becomes significantly reduced.
- The battery charger is in the standby condition when the AC power supply cord is connected. The primary circuit is always "live" as long as the power cord is connected to an electrical outlet.
- Battery can be topped up even if not fully depleted.

Inserting battery and card

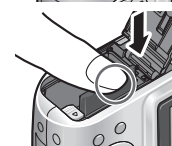
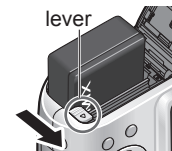


- Set the camera ON/OFF switch to OFF**
- Slide to the 'OPEN' position and open the lid**
- Completely insert battery and card (both click into place)**
- Close lid**
 - Slide to the 'LOCK' position.



■ To remove

- **To remove battery,** move lever in direction of arrow.
- **To remove card,** press down in centre.



■ Compatible memory cards (optional)

- The following SD standard-based cards (Panasonic brand recommended)
 - SD memory cards, 8MB-2GB
 - SDHC memory cards (4GB) → (P.11)
- (4GB (or greater) cards without the SDHC logo are not of SD standard.)
 - For recording picture/time capacity, see (P.92)
 - For model numbers and types, see <http://panasonic.co.jp/pavc/global/cs> (This Site is English only.)
- MultiMediaCards (still images only)

SDHC logo




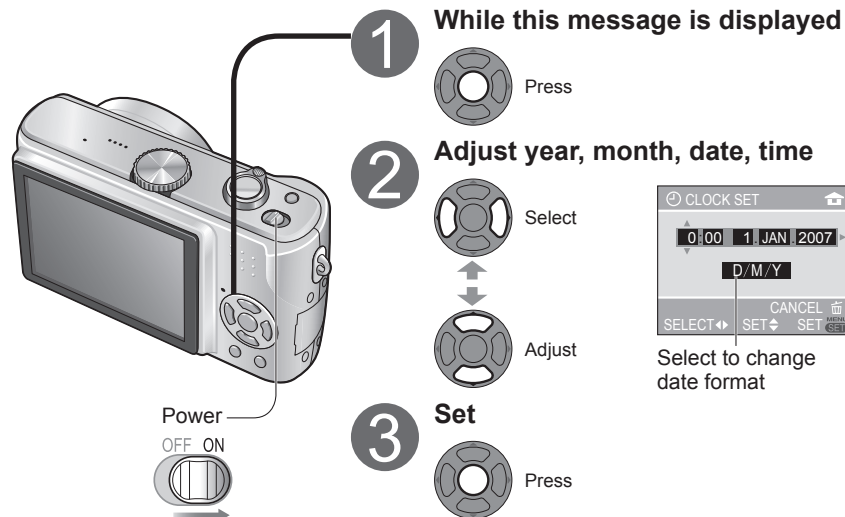
SDHC memory card

Caution

- Always use genuine Panasonic batteries.
- If you use other batteries, we cannot guarantee the quality of this product.
- Do not remove card or battery while power is 'ON' or while status indicator is on (Camera may cease operating correctly, or card/recorded contents may be damaged).
- The reading/writing speed of a MultiMediaCard is slower than an SD memory card. When a MultiMediaCard is used, the performance of certain features may be slightly slower than advertised.
- Keep the Memory Card out of reach of children to prevent swallowing.


3 Setting the clock

Set mode dial (P.13) to NORMAL PICTURE mode  before turning on power.
'PLEASE SET THE CLOCK' will be displayed when power is turned on for the first time.



- Turn on power again and check time display.

■ To change time setting

- ➔ Select 'CLOCK SET' from SETUP menu (P.18), perform ② and ③ above, and press .

■ To set local time at overseas destination

- ➔ 'WORLD TIME' (P.49)

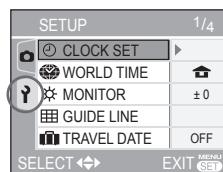
Note






- Failure to set the clock will mean correct date will not be printed (P.76) when printing pictures in digital photo centre or when using DATE STAMP (P.66).
- Time is displayed in 24-hour format. Year can be set between 2000 and 2099.
- Clock settings will be saved for approx. 3 months even after battery is removed, provided a fully-charged battery was installed in camera for the 24 hours beforehand.

4 Know the different menus to get more out of your camera

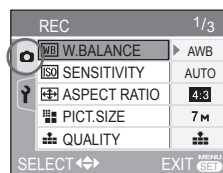
This camera contains a range of menus to enable you to set your photography and playback preferences, and to make the camera easier and more fun to use. The 'SETUP' menu in particular contains important functions, such as for time and power source. Please check these settings before use.





■ Making the camera more convenient to use (SETUP menu) (P.20)



- Make settings for ease of use such as adjusting the clock and changing the beep sounds.
- Applicable modes (P.13):    SCN1 SCN2  

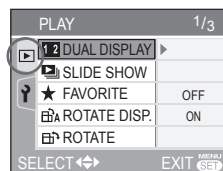
■ Changing photography preferences (REC menu) (P.50)




- Make settings such as white balance, sensitivity, aspect ratio, and picture size.
- Applicable modes (P.13):    SCN1 SCN2 

(Screen example: DMC-TZ3)

■ Using your pictures (PLAY menu) (P.64)



- Make settings for using the pictures you have taken, including rotating, protecting, trimming, and handy settings for printing your pictures (DPOF).
- Applicable modes (P.13): 

(Screen example: DMC-TZ3)

The following menus are also included:

■ To make photography settings to fit certain scenes, e.g. night

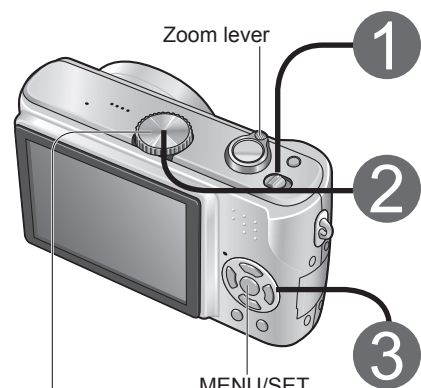
- ➔ SCENE menu (P.40)

■ To easily change settings such as picture quality, for beginners

- ➔ SIMPLE MODE menu (P.29)

Here is explained an example of changing the 'POWER SAVE' setting from '5 MIN.' to '2 MIN.' from SETUP menu.

('POWER SAVE' is a function to extend battery life by automatically turning the camera off if no operations are performed for a certain period.)



1 Turn on the power
OFF ON

2 Set to

3 Bring up the menu
MENU/SET

REC menu is displayed.

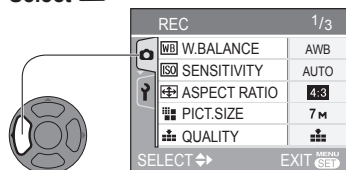
REC 1/3	
W.BALANCE	AWB
ISO SENSITIVITY	AUTO
ASPECT RATIO	4:3
PICT.SIZE	7M
QUALITY	

First page of three currently displayed. (Zoom lever can be used to scroll through pages.)

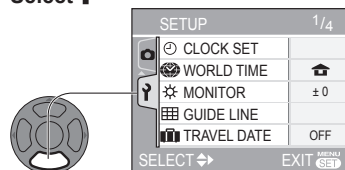
- SETUP menu**
Applicable modes: SCN1 SCN2
- REC menu**
Applicable modes: SCN1 SCN2
- PLAY menu**
Applicable modes:

4 Select SETUP menu

Select



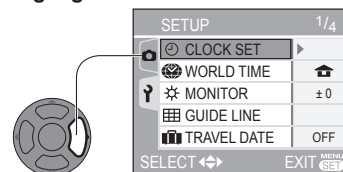
Select



Explanation of settings method for SETUP menu, REC menu, and PLAY menu.
(Screen example: DMC-TZ3)

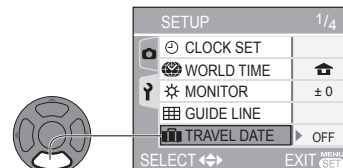
5 Move across to the items

Highlight 'CLOCK SET'



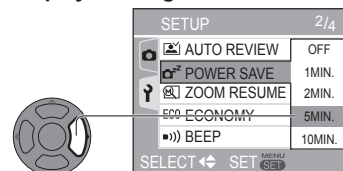
6 Select the correct item

Press ▼ and move beyond the bottom item

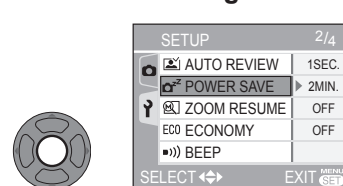


7 Select this item

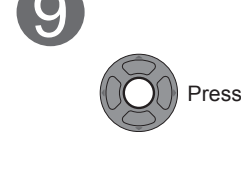
Displays settings



8 Select this setting



9 Finish

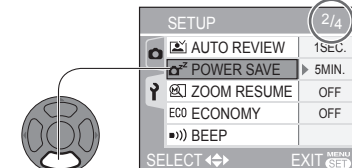


Note

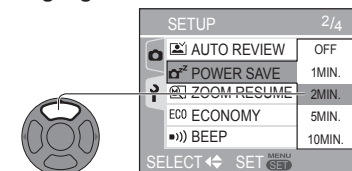
- To restore default settings → 'RESET' (P.22)
- For certain items, there may be no settings selection (step 7) (e.g. 'ROTATE' on PLAY menu), or actual display may differ from that above (e.g. 'WORLD TIME' on SETUP menu).

Page 2 displayed

Move down to 'POWER SAVE'




Highlight '2 MIN.'















Make general camera settings such as adjusting the clock, extending the battery life, and changing the beep sounds. (Settings method → P.18)

● Default setting outlined:























'CLOCK SET', 'AUTO REVIEW', 'POWER SAVE' and 'ECONOMY' are important for clock setting and battery life. Be sure to check these before use.

- *1 Settings also reflected in SIMPLE MODE ♥ (P.28).
- *2 Settings also reflected in CLIPBOARD mode  (P.58).
- *3 DMC-TZ3 only.

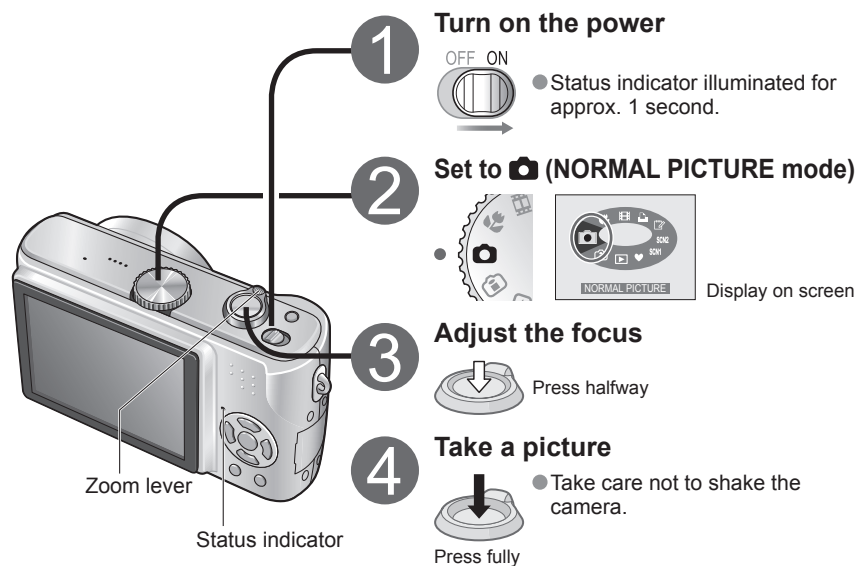
Item	Uses, operations	Settings, notes
 CLOCK SET *1, 2	Set the date and time.	● Set the date/month/year and time (P.16).
 WORLD TIME *1, 2	Set the local time at an overseas destination (P.49)	 (DESTINATION) /  (HOME)
 MONITOR *1, 2	Adjust the brightness of the LCD monitor (7 levels).	-3 · · ±0 · · +3
 GUIDE LINE	Change the pattern of the guide lines displayed when taking pictures. Display recording information or histogram together with guide lines (P.33).	Recording information: OFF / ON Histogram: OFF / ON PATTERN:  /  ● 'PATTERN' cannot be selected in CLIPBOARD mode (P.58). Recording information and histogram cannot be displayed. ● Not displayed in SIMPLE MODE.
 TRAVEL DATE *1, 2	Record the number of days elapsed in your travels.	OFF / SET (P.48)
 AUTO REVIEW	Automatically display pictures immediately after taking them. ● Select display time (seconds). ● 'ZOOM' is useful for checking focus.	OFF / 1SEC. / 3SEC. / ZOOM *3 (displays for 1 second, then at 4x zoom for 1 second) ● In 'SELF PORTRAIT' scene mode (P.42), 'AUTO BRACKET' *3 (P.38), 'BURST' mode (P.54), or pictures with audio (P.53, 70), auto review performed regardless of setting. ● Motion pictures cannot be automatically reviewed.
 POWER SAVE	Automatically shut off power while not in use. (Saves battery consumption) ● To restore: Press the shutter button halfway, or turn on the power again.	OFF / 1 MIN. / 2 MIN. / 5 MIN. / 10MIN. (Set time before POWER SAVE is initiated) ● Cannot be used in the following cases: When using AC adaptor (DMW-AC5G, optional), when connected to computer/printer, during motion picture recording/playback, during slideshows (exception: set to 10 minutes while slideshow is paused and during 'MANUAL' slideshows) ● Setting fixed to '2 MIN.' in 'ECONOMY', and to '5 MIN.' in SIMPLE MODE (P.28) and CLIPBOARD (P.58).
 ZOOM RESUME *1, 2	Remember the zoom ratio when turning power off.	OFF / ON ● Focus position cannot be stored. ● Released and cannot be set when using 'SELF PORTRAIT' scene mode.
ECO ECONOMY	Restrict battery consumption when recording. (Dims LCD monitor, automatically shuts off monitor when not in use.) ● Monitor also shut off during flash battery charging. ● Status indicator is illuminated while monitor is off. ● To restore: Press any button.	OFF / LEVEL 1 (turned off after approx. 15 seconds of inactivity)/ LEVEL 2 (turned off after approx. 15 seconds, or approx. 5 seconds of inactivity after recording) ● Cannot be used in the following cases: When using SIMPLE MODE, CLIPBOARD mode, or AC adaptor (DMW-AC5G, optional), when menu screen is displayed, when using self-timer setting or during motion picture recording. ● LCD monitor not dimmed when using 'POWER LCD' or 'HIGH ANGLE' (P.34).

● Default setting outlined:

- *1 Settings also reflected in SIMPLE MODE ♥ (P.28).
 ● *2 Settings also reflected in CLIPBOARD mode 📋 (P.58).

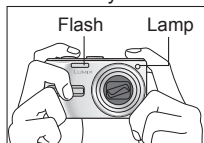
Item	Uses, operations	Settings, notes
 BEEP *1, 2	Change or mute beep sounds.	Volume:  (mute) /  (low) /  (high) Tone:  /  / 
 SHUTTER *1, 2	Change or mute shutter sounds.	Volume:  (mute) /  (low) /  (high) Tone:  /  / 
 VOLUME *2	Adjust volume of sound from speakers (7 levels).	0 · · · LEVEL3 · · · LEVEL6 ● Cannot be used to adjust TV speaker volume when connected to TV.
 NO. RESET *1	Reset image file numbers and start again from '0001'. ● File numbers and folder numbers (P.75)	YES/NO ● Numbers cannot be reset once folder number reaches 999. In this case, save all necessary pictures to your computer, and format the built-in memory/card. (P.73) ● To reset folder number to 100: First, format (P.73) the built-in memory or card, and reset the file numbers using NO. RESET. Then, select 'YES' on the folder number reset screen.
 RESET *2	Reset SETUP menu (P.20) and REC menu items (P.50) to their default settings.	RESET REC. SETTINGS? (YES/NO) RESET SETUP PARAMETERS? (YES/NO) ● Resetting SETUP parameters causes the following to be reset: Birthdays in BABY (P.42) and PET modes (P.44), 'TRAVEL DATE' (P.48), 'WORLD TIME' (P.49), 'ZOOM RESUME' (P.20), 'FAVORITE' in PLAY menu (set to 'OFF') (P.65), 'ROTATE DISP.' (set to 'ON') (P.66), CLIPBOARD menu (INITIAL DISP.) (set to 'OFF') (P.60) (Only 'BEEP' is reset in the SIMPLE MODE menu.) ● Folder numbers and clock settings will not be reset.
 VIDEO OUT	Change the video output format when connected to a TV, etc. (PLAYBACK mode only)	NTSC / PAL
 TV ASPECT	Change the aspect ratio when connected to a TV, etc (PLAYBACK mode only).	16:9 / 4:3 ● When set to 16:9 , pictures will be displayed vertically long on LCD monitor when connecting AV cable (supplied) (P.79).
 SCENE MENU	Display scene menu when mode dial is set to SCN1 or SCN2.	OFF (use previously selected scene mode) / AUTO (displays scene menu) ● To display scene menu when set to 'OFF': Press 'MENU/SET'.
 DIAL DISPLAY *1, 2	Display mode dial operation on screen.	OFF / ON (display)
 LANGUAGE *1, 2	Change display language.	ENGLISH / DEUTSCH (German) / FRANÇAIS (French) / ESPAÑOL (Spanish) / ITALIANO (Italian) / 日本語 (Japanese)

1 Taking pictures

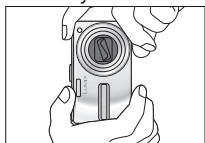


■ Holding the camera

Horizontally



Vertically



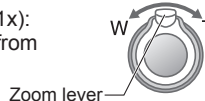
- Do not block the flash or the lamp (P.12). Do not look at them from close range.
- Do not touch the lens.
- Stand with your arms close to your body and with your legs apart.

■ When (jitter alert) is displayed

Use the Optical image stabilizer (P.39), a tripod, or the self-timer (P.35).

■ Focus range (To take pictures from close range→P.46)

When set to maximum W (1x):
 Distance of at least 50 cm from subject



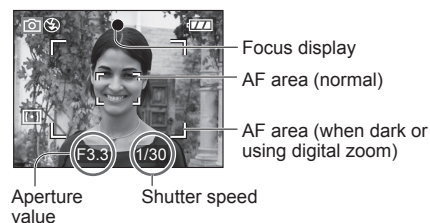
When set to maximum T (maximum zoom): Distance of at least 2 m from subject

■ To use flash (P.36)

Please set the clock before taking pictures (P.16).

Adjusting the focus

Press the shutter button halfway, ensuring that the subject is aligned with the AF area.



Focus	In focus	Not in focus
Focus display	On *	Flashing
AF area	Green	Red/white
Sound	Double beep	Multiple beep

* Images outside of the focus range may not be in full focus even if the light remains on.

(If red: Could not achieve optimal exposure → Use flash (P.36) or change 'SENSITIVITY' (P.51).)

Problems with adjusting focus (subject not in centre, etc)



① First adjust focus according to subject

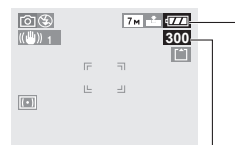
② Return to desired composition

● Readjust focus if not correctly adjusted initially.

Subjects/environments which may make focusing difficult:

- Fast-moving or extremely bright objects, or objects with no colour contrast
- Taking pictures through glass or near objects emitting light. In dark, or with significant jitter.
- When too close to object or when taking pictures of both distant and close objects together in the same picture

Checking remaining battery and memory capacity



Remaining battery




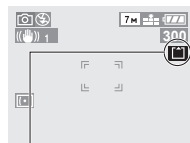
(Status indicator flashes when LCD monitor is off)
 Recharge or replace battery (P.14).



- Not displayed when using AC adaptor (DMW-AC5G, optional).

1 Taking pictures (Continued)

Picture save destination

Pictures will be saved to a card  if one is inserted, or to the built-in memory  if not.



 Card
 Built-in memory

When in operation



Card



Built-in memory

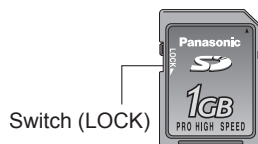
are illuminated red.

This means that an operation is in progress, such as the recording, reading, or deleting of pictures. Do not turn off the power or remove the battery, card, or AC adaptor (DMW-AC5G, optional) (this may cause damage to or loss of data).

- Pictures may be copied between cards and the built-in memory (P.73).
- It is recommended that you copy important pictures to your computer (as electromagnetic waves, static electricity, or faults may cause data to be damaged).

■ Cards

- Always format (P.73) cards in this camera before first use.
- If the switch on the card is set to 'LOCK', operations such as formatting, copying, and deleting cannot be performed.
- Compatible memory cards → (P.15)
- Recording picture/time capacity → (P.92)



Switch (LOCK)

■ Built-in memory (approx. 12.7 MB)

- Used as a temporary save destination when you have no card.
- May take longer to access than cards.
- Clipboard pictures (P.58) are saved to built-in memory.

■ Recording picture capacity estimates (default settings)

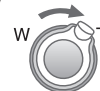
Save destination	Built-in memory	memory card (Example)			
	12.7 MB	256 MB	512 MB	1 GB	2 GB
Pictures (DMC-TZ3)	2	68	135	270	550
Pictures (DMC-TZ2)	3	81	160	320	660

The number of pictures that may be recorded varies greatly according to aspect settings (P.51), picture size (P.52), and quality (P.53) settings, in addition to the capacity of the card. (For more details: P.92)

2 Taking pictures with zoom

Subjects can be enlarged by ten times with 'Optical zoom' and up to 15 (13.8*) times with 'Extra optical zoom'. 'Digital zoom' can then be used to multiply this effect by four times further. (28-280 mm: 35 mm film camera equivalent) * DMC-TZ2

Enlarge (Tele)









Turn to T side

Restore (Wide)



Turn to W side

■ Zoom types

Type	Optical zoom	Extra optical zoom (EZ)	Digital zoom
Max. enlargement	10x	15x ^{*1} , 13.8x ^{*2} , 13x ^{*1} 12.6x ^{*1} , 12x, 11.6x ^{*2}	40x (including optical zoom: 10x) 60x (including extra optical zoom: 15x)
Picture quality	No loss	No loss	Deteriorates by factor of enlargement
Conditions	None	Select picture size (P.52) marked with 	'D. ZOOM' (P.56) set to 'ON' in REC menu
Screen display		  displayed	Displays digital zoom area   Within digital zoom area AF area becomes larger when pressing shutter button halfway

*¹ DMC-TZ3 only, *² DMC-TZ2 only (Zoom ratio depends on ASPECT RATIO and PICT.SIZE.)

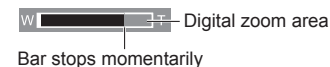
■ What is Extra optical zoom (EZ)?

If, for example, set to '3M EZ' (equivalent to 3 million pixels), a picture will only be taken of a 3M-sized central part of a 7M (equivalent to 7.2 million pixels)^{*3} area, meaning that the picture can be enlarged further.

*³ DMC-TZ2: 6M

■ Entering digital zoom area

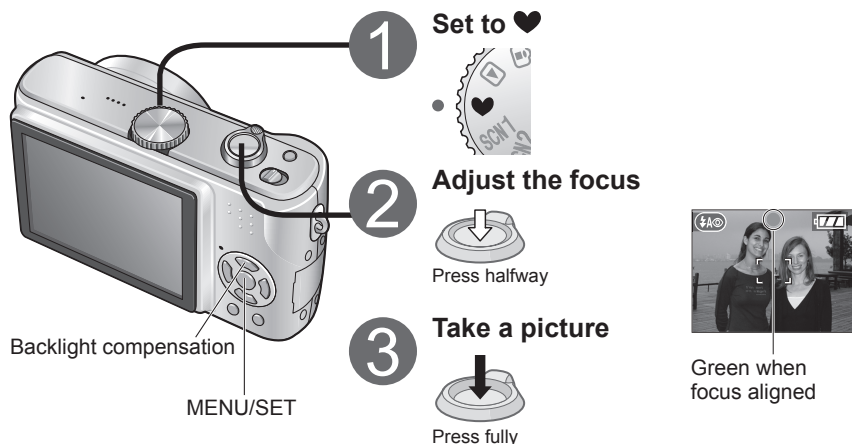
Once the bar stops before the digital zoom area, continue to hold the zoom lever, or release it once then push it again.



■ To recall zoom ratio from time power was turned off ➡ 'ZOOM RESUME' (P.20)

- The enlargement ratio displayed in the bar on screen is an estimate.
- Adjust the focus after adjusting the zoom.
- Do not block the lens barrel (P.12) movement while zooming.
- Zoom cannot be adjusted during motion picture recording.
- A greater degree of distortion may be generated by taking wider-angled pictures of close objects, while using more telescopic zoom may result in more colouring appearing around the outlines of objects.
- The camera may make a rattling noise and vibrate when the zoom lever is operated – this is not a fault.
- When using extra optical zoom, zoom movement may stop momentarily near maximum W (1x), but this is not a fault.
- The Optical image stabilizer may be less effective when using digital zoom. It is recommended that you use a tripod and the self-timer (P.35).

3 Taking pictures with SIMPLE MODE



- The settings for the following functions are fixed.
- The following functions cannot be used.

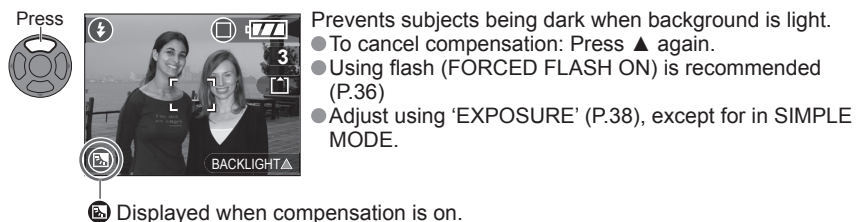
Item	Setting
SELFTIMER (P.35)	OFF/10 SEC.
POWER SAVE (P.20)	5 MIN.
STABILIZER (P.39)	MODE1
W.BALANCE (P.50)	AWB
SENSITIVITY (P.51)	*1
METERING MODE (P.53)	
AF MODE (P.54)	
AF ASSIST LAMP (P.56)	ON
COL.MODE (P.57)	STANDARD

*1 Same as with ISO LIMIT '800' setting in Intelligent ISO mode (P.46).

Item
BURST mode (P.54)
Digital zoom (P.27)
Exposure compensation/AUTO BRACKET *2 (P.38)
White balance fine adjustment (P.50)
AUDIO REC. (P.53)
CONT.AF (P.55)
ECONOMY (P.20)
HIGH ANGLE (P.34)
GUIDE LINE (P.33)

*2 DMC-TZ3 only

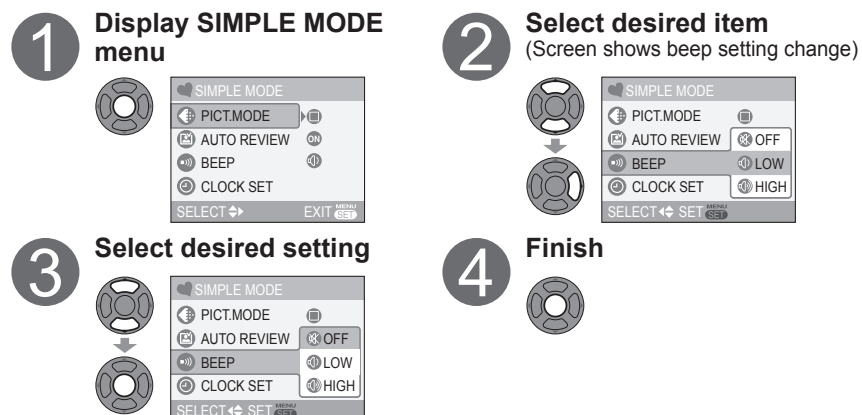
Backlight compensation (SIMPLE MODE only)



This mode is designed for beginners to easily take pictures. Only major functions and menu items are displayed.

'SIMPLE MODE' menu

Use the menu to change settings such as picture quality and beep sounds.



● Default setting outlined:

Item	Setting
PICT.MODE	ENLARGE (4:3, 7M *1, Fine): for printing to 8"x10" size, letter size etc. 4"x6"/10x15cm *2 (3:2, 2.5M EZ, Standard): for printing regular sizes. E-MAIL *2 (4:3, 0.3M EZ, Standard): for attaching to emails or using in homepage.
AUTO REVIEW	OFF / ON: Displays picture for approx. 1 second after taking
BEEP *3	OFF / LOW / HIGH
CLOCK SET *3	Change the date and time (P.16)

*1 6M for DMC-TZ2 model. *2 Extra optical zoom (P.27) available.

*3 Settings changes reflected in other modes.

● Focus range

Max. W: Distance of at least 5 cm from subject

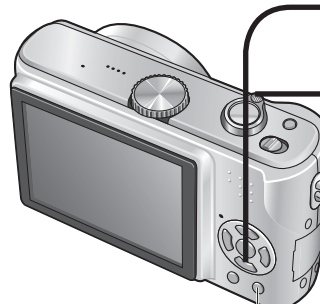
Max. T: Distance of at least 1 m from subject (TELE displayed) (2 m unless max.T)




- Flash can be set to 'AUTO/RED-EYE' or 'FORCED OFF' ('FORCED FLASH ON' or 'FORCED OFF' when using backlight compensation).
- Recording picture capacity (P.92)

4 Viewing your pictures instantly (REVIEW)

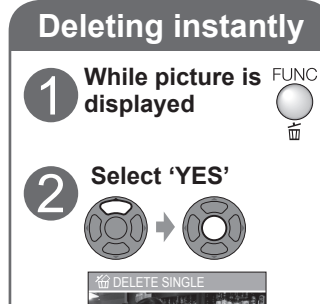
Pictures can be checked while still in a recording mode ().




1 Display picture



- Most recently taken picture will be displayed for about 10 seconds.
- To close: Press or press the shutter button halfway.
- To view previous/next picture:



2 Enlarge picture (4x/8x)




Turn to T side

Current zoom position (displayed for 1 sec.)


- Picture is enlarged as you turn zoom lever towards T.
- To reduce zoom: Turn lever towards W side.
- To move zoom position:

Deleting instantly

1 While picture is displayed



2 Select 'YES'



Highlight 'YES' in orange

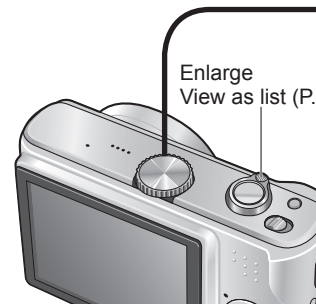
■ To delete several or all (P.32)

Note


- Deleted pictures cannot be recovered.
- Motion pictures cannot be reviewed in this way. View in PLAYBACK mode (P.62).

5 Viewing your pictures (Play)

When there is no card inserted, the pictures played back from the built-in memory. (Clipboard pictures can only be played back in CLIPBOARD mode (P.59).)

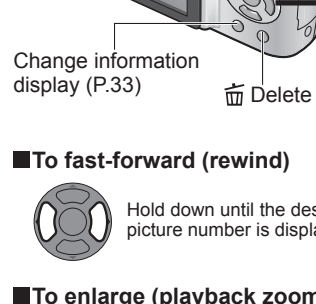


1 Set to

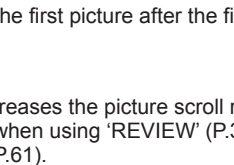


File number

Picture number



2 Scroll through pictures




Previous Next

Change information display (P.33)

Delete (P.32)

- Returns to the first picture after the final picture.


■ To fast-forward (rewind)



Hold down until the desired picture number is displayed

- Holding down increases the picture scroll rate.
- Cannot be used when using 'REVIEW' (P.30) or 'Multi playback' (P.61).

■ To enlarge (playback zoom)



Turn to T side

Current zoom position (displayed for 1 sec.)

- Zoom ratio: 1x/2x/4x/8x/16x
- To reduce zoom: Turn lever towards W side
- Move zoom position:
- Enlarging picture will reduce display quality.

■ To playback as list (P.61)

■ To display picture vertically (P.66)

■ To print

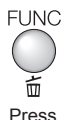
- Using own printer:
 - Direct connection → (P.76)
 - Connection via computer → (P.74)
- At photo shops → Give card to shop assistant.

6 Deleting pictures

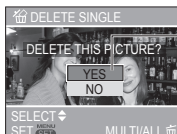
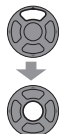
Set to PLAYBACK mode . Pictures deleted will be from card if card is inserted, or from built-in memory if not. To delete clipboard pictures, set to CLIPBOARD mode .

■ To delete 1 picture

1 While picture is displayed (P.31)

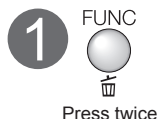


2 Select 'YES'



Highlight 'YES' in orange

■ To delete multiple (up to 50) or all pictures



2 Select type of deletion



● Skip to step 5 if selecting 'ALL DELETE'

3 Select the pictures to delete (Repeat)

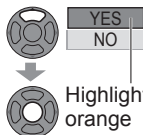


Picture selected

● To release: Press ▼ again



5 Select 'YES'



Highlight 'YES' in orange

■ To cancel

To cancel 'ALL DELETE' or 'ALL DELETE EXCEPT ★', press 'MENU/SET'.

Note

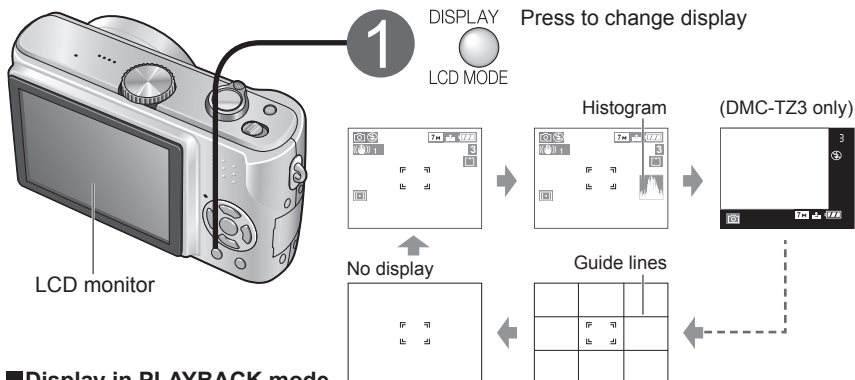
- Deleted pictures cannot be recovered.
- Do not turn off the power during deletion.
- Use a sufficiently charged battery or an AC adaptor (DMW-AC5G, optional).
- When deleting all pictures from built-in memory, pictures actually deleted differ according to mode.

PLAYBACK mode : All pictures in built-in memory, except clipboard picture
If 'FAVORITE' (P.65) setting is 'ON', you can 'ALL DELETE EXCEPT ★ (FAVORITE)'.
CLIPBOARD mode : All clipboard pictures

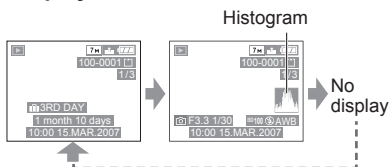
- Pictures cannot be deleted in the following cases:
 - Protected pictures (P.69) (Release the protection before deleting)
 - Card switch is in 'LOCK' position.
 - Pictures not of DCF standard (P.90)
- May take time depending on number of pictures deleted.

Changing recording information display

Change between different LCD monitor displays, such as histograms.



Display in PLAYBACK mode



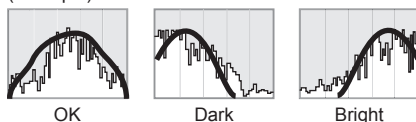
- During playback zoom (P.31), motion picture playback (P.62), slideshow (P.64): Display on/off
- During multi playback, calendar playback (P.61), DUAL DISPLAY (DMC-TZ3 only) (P.64): Display cannot be changed

Histogram

Shows brightness of subject as graph, useful for exposure compensation (P.38), etc. (Display shown is an estimate.)

- Histogram from time of recording is displayed in orange if different to histogram in playback, for example when recording with flash or in dark locations.
- Histogram may differ between times of recording and playback, or from histograms made with image editing software.

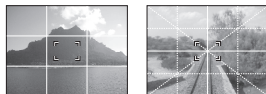
(Example)



Guide lines

Reference for composition (e.g. balance) when recording.

- 'GUIDE LINE' settings (P.20)

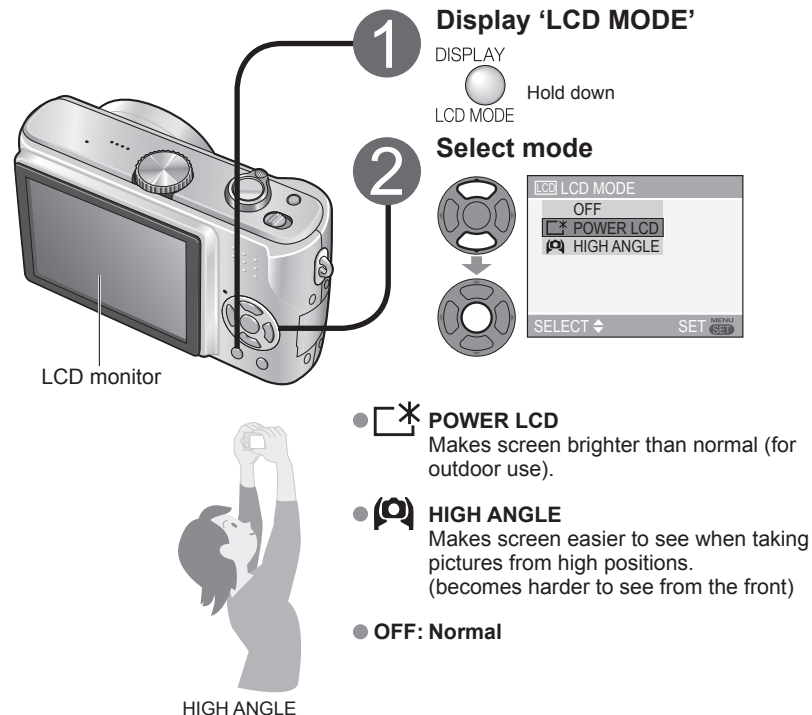


Note

- Display cannot be changed during menu (P.17) display.
- In SIMPLE MODE, display can only be turned on and off.
- Histograms cannot be displayed in SIMPLE MODE (P.28), MOTION PICTURE mode (P.47), or CLIPBOARD mode (P.58).

2 Making LCD monitor easier to see

Make it easier to see the LCD monitor when taking pictures from high positions or in bright outdoor conditions.

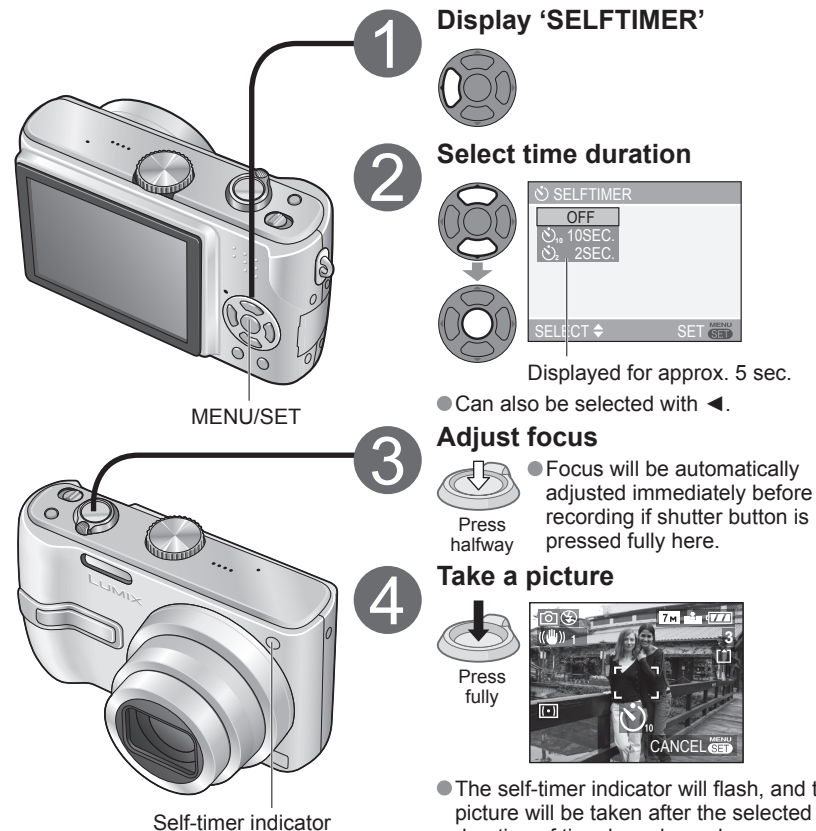


Note

- 'HIGH ANGLE' will be cancelled when power is turned off (including POWER SAVE).
- Block out sunlight (with hand, etc) if reflection makes screen difficult to see.
- 'HIGH ANGLE' cannot be used in the following cases.
 - SIMPLE MODE
 - PLAYBACK mode
 - PRINT mode
 - During menu screen display
 - While reviewing pictures
- 'POWER LCD' will be deactivated if no operations are performed for 30 seconds while recording. (Brightness can be restored by pressing any button)
- Brightness/colour of screen in 'LCD MODE' has no effect on pictures recorded.

3 Taking pictures with self-timer

This is also effective for correcting jitter when pressing the shutter button, by setting the self timer to 2 seconds.

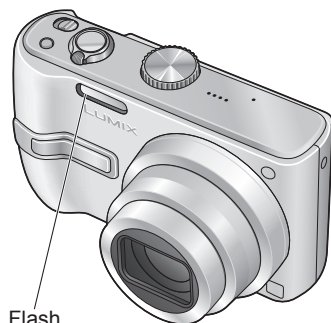


Note

- This function cannot be used in the 'UNDERWATER' scene mode or in MOTION PICTURE mode.
- In some modes, only '2SEC.' or only '10SEC.' may be selected.
SIMPLE MODE: '10SEC.'
CLIPBOARD mode, SCENE mode 'SELF PORTRAIT': '2SEC.'

4 Taking pictures with flash

Available types vary depending on the mode in use.



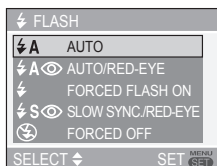
Flash

- Do not cover with hand. Do not look at from close range (few cm).
- Do not bring objects close (heat and light may damage object).

1 Display 'FLASH'



2 Select the desired type



Displayed for approx. 5 sec.

- Can also be selected with ►.

Types

Type, operations	Uses
FLASH AUTO ● Automatic ON/OFF	Normal use
FLASH AUTO/RED-EYE reduction ● Automatic ON/OFF ● Reduces red-eye	Taking pictures of subjects in dark places
FLASH FORCED FLASH ON ● Always on	
FLASH FORCED FLASH ON/RED-EYE reduction (For 'PARTY' and 'CANDLE LIGHT' scene modes only (P.42)) ● Always on ● Reduces red-eye	Taking pictures with backlight or under bright lighting (e.g. fluorescent)
FLASH SLOW SYNC./RED-EYE reduction ● Automatic ON/OFF ● Reduces red-eye ● Slows shutter speed to take brighter pictures	Taking pictures of subjects against a nightscape (tripod recommended)
FLASH FORCED OFF ● Always off	Places where flash use is prohibited

- Two flashes are emitted when using red-eye reduction. Do not move until the second flash is over. Effects may vary depending on the person.
- Shutter speeds are as follows:
FLASH AUTO, FLASH AUTO/RED-EYE reduction, FLASH FORCED FLASH ON, FLASH FORCED FLASH ON/RED-EYE reduction: 1/30-1/2000th
FLASH SLOW SYNC./RED-EYE reduction, FLASH FORCED OFF: 1/8 (changed by SLOW SHUTTER setting (P.56)) -1/2000th

Available types in each mode (⊙: default setting)

	📷	📷	📷	📷	📷	SCENE MODE															
	📷	📷	📷	📷	📷	📷	📷	📷	📷	📷	📷	📷	📷	📷	📷	📷	📷	📷	📷	📷	📷
FLASH AUTO	⊙	—	⊙	⊙	⊙	⊙	⊙	⊙	⊙	—	⊙	—	—	—	⊙	—	⊙	⊙	⊙	⊙	⊙
FLASH AUTO/RED-EYE	⊙	⊙*	⊙	⊙	—	⊙	⊙	⊙	—	—	—	—	—	⊙	—	—	—	—	—	—	—
FLASH FORCED FLASH ON	⊙	—*	⊙	⊙	⊙	⊙	⊙	⊙	⊙	—	⊙	—	—	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙
FLASH SLOW SYNC./RED-EYE	—	—	—	—	—	—	—	—	—	—	⊙	⊙	—	—	—	—	—	—	—	—	—
FLASH FORCED OFF	⊙	—	⊙	⊙	—	—	—	—	—	⊙	—	⊙	⊙	—	—	—	—	—	—	—	—
FLASH	⊙	⊙*	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙

- Cannot be used with MOTION PICTURE mode and scene modes .
- Flash settings may be changed when changing recording mode.
- Scene mode flash settings are restored to default when scene mode is changed.
- * Only or may be selected when using backlight compensation (P.28).

Focus range according to ISO sensitivity ('SENSITIVITY') (P.51) and zoom (P.27).

AUTO	Max. W: Approx. 0.6-4.2 m	Max. T: Approx. 1.0-2.8 m
ISO100	Max. W: Approx. 0.6-1.6 m	Max. T: Approx. 1.0-1.1 m
ISO200	Max. W: Approx. 0.6-2.3 m	Max. T: Approx. 1.0-1.5 m
ISO400	Max. W: Approx. 0.6-3.3 m	Max. T: Approx. 1.0-2.2 m
ISO800	Max. W: Approx. 0.8-4.7 m	Max. T: Approx. 1.0-3.1 m
ISO1250	Max. W: Approx. 1.0-4.7 m	Max. T: Approx. 1.0-3.1 m

- Edges of picture may become slightly dark if using flash at short distances without using zoom (close to max. W). This may be remedied by using a little zoom.

Maximum ISO sensitivity ('ISO LIMIT') (P.51) and focus range when using Intelligent ISO (P.46).

ISO400	Max. W: Approx. 0.6-3.3 m	Max. T: Approx. 1.0-2.2 m
ISO800/ISO1250	Max. W: Approx. 0.6-4.2 m	Max. T: Approx. 1.0-2.8 m

Note

- If flash is to be emitted, flash type marks (e.g.) will turn red when shutter button is pressed halfway.
- No pictures may be taken if these marks (e.g.) are flashing (flash is charging).
- Insufficient flash reach may be due to inadequately set exposure or white balance.
- Flash effect may not be fully achieved with high shutter speeds.
- Flash charging may take time if battery is low, or if using flash repeatedly.
- When using ECONOMY (P.20), LCD monitor is shut off while flash is charging.

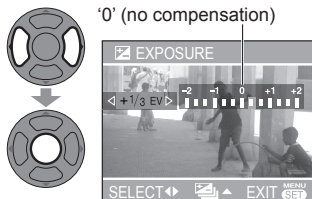
5 Taking pictures with exposure compensation

Corrects exposure when adequate exposure cannot be obtained (if difference between brightness of object and background, etc). Depending on the brightness, this may not be possible in some cases.

1 Display 'EXPOSURE'



2 Select a value



- The compensation value is displayed on the bottom-left of the screen. (1/3, etc)

■ AUTO BRACKET (DMC-TZ3 only)

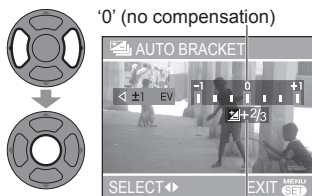
Takes 3 pictures in succession, changing the exposure. After exposure compensation, the compensation value is as standard.

1 Display 'AUTO BRACKET'



Press several times

2 Select a value



Value displayed after exposure compensation set

- Cannot be used with flash or when there is remaining capacity for only 2 more pictures.
- When 'AUTO BRACKET' is set, is displayed on the left of the screen.
- Canceled when the power is turned off.

● Example of exposure compensation



Over-exposed

↓ Minus direction



Optimum exposure

↑ Plus direction



Under-exposed

● e.g. AUTO BRACKET with ±1EV



First picture
0EV
(Standard)



Second picture
-1EV
(Darker)

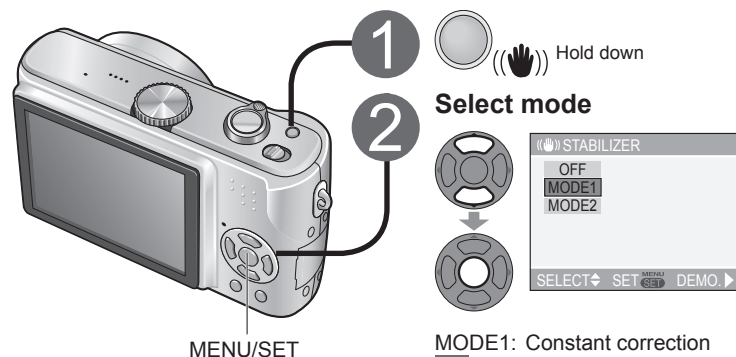


Third picture
+1EV
(Brighter)

6 Optical image stabilizer

Automatically detects and prevents jitter.

Settings cannot be changed in SIMPLE MODE (P.28) or in 'SELF PORTRAIT' (P.42) and 'STARRY SKY' (P.44) scene modes.



MODE1: Constant correction
(Monitor image stable, composition easy to determine)

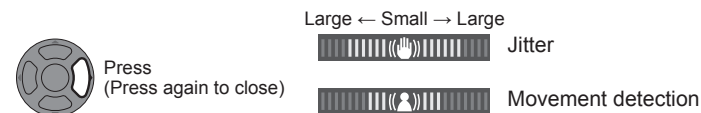
MODE2: Correction at moment shutter button is pressed
(More effective than MODE1)

OFF: Pictures deliberately taken with no jitter correction

- Cases where optical image stabilizer may be ineffective:
 - Heavy jitter
 - High zoom ratio (digital zoom: P.27)
 - Fast-moving objects
 - Indoors or in dark locations (due to low shutter speed)

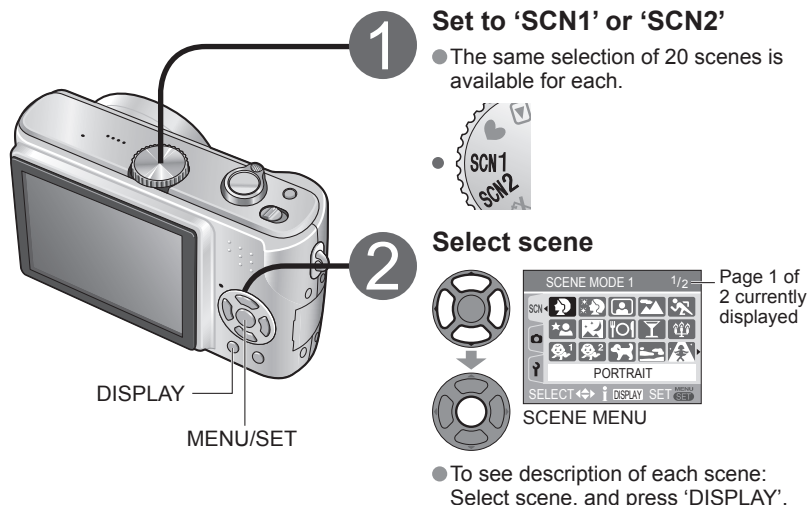
■ To view jitter/movement detection demo screen

Extent of jitter and of subject movement are shown on graph. (Estimate)



- Recording and zoom cannot be performed during demo.
- Automatic ISO sensitivity settings based on movement detection are only effective when using Intelligent ISO (P.46) and the 'SPORTS' (P.42), 'BABY' (P.42), and 'PET' (P.44) scene modes.
- Use the movement detection demo with objects with contrasting colouring.

7 Taking pictures according to the scene



SCN1 and SCN2

When using SCENE MODE, the camera remembers the previously selected scene. For example, if SCN1 is set to 'NIGHT SCENERY' and SCN2 is set to 'NIGHT PORTRAIT', you can easily switch between settings depending on whether or not there will be people in the picture.

- To enable pictures to be taken immediately (no automatic SCENE MENU display)
 - Display SETUP menu (P.18)
 - Select 'SCENE MENU' (P.22) and set it to 'OFF'.

- To display scene menu: Press 'MENU/SET'

Note

- Selecting a scene mode inappropriate for the actual scene may affect the colouring of your picture.
- Brightness may be adjusted using 'EXPOSURE' (P.38) (except in 'STARRY SKY' mode).
- Detailed settings can be made in REC menu (P.50). (Except in 'SENSITIVITY', 'METERING MODE', and 'COL. MODE') Certain settings cannot be made for some scenes.
- 'W. BALANCE' can be set to the following. 'PORTRAIT', 'SOFT SKIN', 'SELF PORTRAIT', 'SPORTS', 'BABY', 'PET', 'HIGH SENS.' (Setting is restored to 'AWB' when scene is changed.)
- The types of flash available (P.36) vary according to the scene. The scene mode flash setting is reset to the initial setting when the scene mode is changed.
- Guidelines displayed in grey in 'NIGHT PORTRAIT', 'NIGHT SCENERY', 'STARRY SKY', and 'FIREWORKS' scene modes.

Using SCENE MODE enables you to take pictures with optimum settings (exposure, colouring, etc) for given scenes.





















Scene types








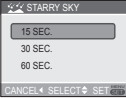












• Functions, tips for each scene (P.42-45)

Taking pictures according to the scene (Continued)

Using flash in scene modes (P.37)

Scene	Uses, functions	Tips, notes	Main fixed settings
 PORTRAIT	Improves the skin tone of subjects for a healthier appearance in bright daylight conditions.	<ul style="list-style-type: none"> ● Stand as close as possible to object. ● Zoom: As telescopic as possible (T side) 	SENSITIVITY: ISO100
 SOFT SKIN	Smooths skin colours in bright, outdoor daylight conditions (portraits from chest upwards). ● Clarity of effect may vary depending on brightness.	<ul style="list-style-type: none"> ● Stand as close as possible to object. ● Zoom: As telescopic as possible (T side) 	SENSITIVITY: ISO100
 SELF PORTRAIT	Take pictures of yourself. ● Press shutter button halfway → self-timer indicator illuminates → press shutter button fully → review (if self-timer indicator flashes, focus is not correctly aligned) ● To take pictures with audio (P.53) (self-timer indicator illuminated during recording)	<ul style="list-style-type: none"> ● Focus: 30-70 cm (Max. W) ● Do not use zoom (harder to focus). (Zoom moved to max. W automatically) ● 2-second self-timer (P.35) recommended. 	STABILIZER: MODE2 AF MODE:  9 areas AF ASSIST LAMP: OFF SELFTIMER: OFF/2SEC. ZOOM RESUME: OFF
 SCENERY	Take clear pictures of wide, distant subjects.	<ul style="list-style-type: none"> ● Stand at least 5 m away. 	FLASH:  FORCED OFF AF ASSIST LAMP: OFF
 SPORTS	Take pictures of scenes with fast movement, e.g. sports.	<ul style="list-style-type: none"> ● Stand at least 5 m away. 	SENSITIVITY: ISO LIMIT: ISO800 (Same as Intelligent ISO mode  (P.46)) SLOW SHUTTER: Cannot be set Digital zoom: Cannot be set
 NIGHT PORTRAIT	Take pictures of people and nightscapes with close to actual brightness. ● Interference may be noticeable with dark scenes. ● Shutter may remain closed for 1 second after taking picture.	<ul style="list-style-type: none"> ● Subject should not move for at least 1 second. ● Use flash. ● Tripod, self-timer recommended. ● Stand 1.2-5 m (Max. W (wide-angle), 1.5 m recommended) away. 	CONT.AF: OFF
 NIGHT SCENERY	Take clear pictures of night scenes. ● Interference may be noticeable with dark scenes. ● Shutter may remain closed for up to 8 seconds after taking picture.	<ul style="list-style-type: none"> ● Stand at least 5 m away. ● Do not move for 8 seconds. (Shutter speed: max. 8 sec) ● Tripod, self-timer recommended 	FLASH:  FORCED OFF CONT.AF: OFF/AF ASSIST LAMP: OFF SENSITIVITY: ISO100 SLOW SHUTTER: Cannot be set
 FOOD	Take natural-looking pictures of food.	<ul style="list-style-type: none"> ● Focus: Max. W: 5 cm and above Max. T: 1 m and above 	—
 PARTY	Brighten subjects and background in pictures of indoor events, such as weddings.	<ul style="list-style-type: none"> ● Stand approx. 1.5 m away. ● Zoom: Wide (W side) ● Use flash. ● Tripod, self-timer recommended. 	—
 CANDLE LIGHT	Bring out the atmosphere of a candlelit room.	<ul style="list-style-type: none"> ● Focus: Max. W: 5 cm and above Max. T: 1 m and above ● Do not use flash. ● Tripod, self-timer recommended. 	—
 BABY (Continued)	Uses weak flash to bring out skin colours. ● To record age: BIRTHDAY SET: Select 'WITH AGE', and press 'MENU/SET'. ① Select 'BIRTHDAY SET'. ② Set birthday with     , and press 'MENU/SET'. ('BABY1' and 'BABY2' can be set separately.)	<ul style="list-style-type: none"> ● Focus: Max. W: 5 cm and above Max. T: 1 m and above ● Age will be displayed for approx. 5 seconds after setting this mode. ● Age display format depends on LANGUAGE setting. 	SENSITIVITY: ISO LIMIT: ISO400 (Same as Intelligent ISO mode  (P.46)) Digital zoom: Cannot be set

Scene	Uses, functions	Tips, notes	Main fixed settings
 BABY	<ul style="list-style-type: none"> ● Date of birth will be displayed as '0 month 0 day'. ● To reset: Select 'RESET' from SETUP menu (P.22). 	<ul style="list-style-type: none"> ● Age cannot be added after recording. ● Age may be printed from a computer using the supplied software (P.11). ● Age can be stamped onto picture using 'DATE STAMP' (P.66). 	(P.43)
 PET	Record pet's age when taking pictures. Settings method same as for 'BABY' (P.42-45).	<ul style="list-style-type: none"> ● AF ASSIST LAMP default setting is 'OFF'. ● Others same as 'BABY' (P.42-45) 	Same as for 'BABY' (P.43)
 SUNSET	Take clear pictures of scenes such as sunsets.	—	FLASH:  FORCED OFF AF ASSIST LAMP: OFF SENSITIVITY: ISO100
 HIGH SENS.	Prevents blurring of subject in dark, indoor conditions. ● Pictures may appear slightly grainy due to high sensitivity.	● Focus: Max. W: 5 cm and above Max. T: 1 m and above	FLASH:  FORCED OFF SENSITIVITY: ISO3200 Extra optical zoom and digital zoom cannot be used.
 STARRY SKY	Take clear pictures of starry skies or dark subjects. ● Shutter speed settings ① Select with ▲▼, and press 'MENU/SET'. ② Press shutter button.  Set longer shutter speeds for darker conditions.  Countdown begins	<ul style="list-style-type: none"> ● Always use a tripod. ● Self-timer recommended. ● Do not move the camera until countdown has ended. ● To change shutter speed, press 'MENU/SET', then ►, and select 'STARRY SKY'. ● 'EXPOSURE', 'AUTO BRACKET' (DMC-TZ3 only), and 'BURST' cannot be used. 	FLASH:  FORCED OFF AUDIO REC.: OFF CONT.AF: OFF STABILIZER: OFF SENSITIVITY: ISO100 SLOW SHUTTER: Cannot be set
 FIREWORKS	Take clear pictures of fireworks in the night sky. ● Shutter speed can be set to 1/4 second or 2 seconds (if little jitter or if optical image stabilizer is 'OFF'). (when not using exposure compensation)	<ul style="list-style-type: none"> ● Stand at least 10 m away. ● Tripod recommended. 	FLASH:  FORCED OFF SENSITIVITY: ISO100 CONT.AF: OFF/ AF ASSIST LAMP: OFF
 BEACH	Bring out the clear blues of the sky and the sea without darkening subject.	● Beware of sand and sea water.	—
 SNOW	Bring out the natural colour of the snow in ski slope and mountain scenes.	● Battery life is reduced in lower air temperatures.	—
 AERIAL PHOTO	Take pictures of the view from aircraft windows.	<ul style="list-style-type: none"> ● Angle the camera towards areas of contrasting colours when aligning the focus. ● Check that the interior of the aircraft is not reflected in the window. 	FLASH:  FORCED OFF AF ASSIST LAMP: OFF
 UNDERWATER	Achieve natural colours under water. ● Always use marine case (DMW-MCTZ3, optional).  AF LOCK (focus fixed)	<ul style="list-style-type: none"> ● For fast moving subjects, align with the AF area and press ◀ (AF lock). Press ▶ again to release. ● Adjust red and blue levels with 'white balance fine adjustment' (P.50). ● Focus: Max. W: 5 cm and above Max. T: 1 m and above 	Self-timer: Cannot be used

Avoiding subject blurring / Taking close-up pictures (Intelligent ISO) (MACRO mode)

Avoiding subject blurring in darker conditions or with fast-moving subjects

Detects movement of the subject and sets the optimum ISO sensitivity and shutter speed according to the brightness.

1 Set to

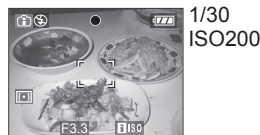


■ **For moving subjects indoors...**
sensitivity and shutter speed raised to avoid subject blurring.



2 Take a picture (P.24)

■ **For stationary subjects indoors...**
sensitivity lowered to avoid interference.



- The maximum level for ISO sensitivity can also be set (P.51, 'ISO LIMIT'). If the maximum level is set to '800' or '1250', this will be reduced to '640' when using the flash.
- Subject movement may not be detected if subject is too small, is at the edge of the screen, or starts to move at the same time as the shutter (when button is pressed fully).
- Blurring may occur depending on the brightness and movement speed.
- 'D.ZOOM' (P.27) and 'SLOW SHUTTER' (P.56) cannot be used.

■ Focus range in Intelligent ISO mode, MACRO mode

Max. W: Distance of at least 5 cm from subject
Max. T: Distance of at least 1 m from subject (TELE↓ displayed) (2 m unless max. T)
Zoom lever

Taking close-up pictures of flowers, etc

1 Set to



2 Take a picture (P.24)

- We recommend using a tripod, the self-timer (P.35), and flash 'FORCED OFF' (P.36).
- Moving the camera after aligning the focus is likely to result in poorly focused pictures if subject is close to camera, due to margin for focus alignment being severely reduced.
- Resolution may be reduced around the edges of the picture.

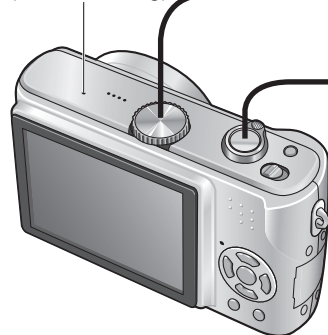
■ Taking close-up pictures from more distant locations (Tele Macro function)

Zoom to max. T to take close-up pictures of flowers at foot-level, or animals that you cannot approach, from distances of at least 1 m. Align focus after zooming by pressing shutter halfway. Using tripod is recommended as jitter occurs easily.

Taking motion pictures

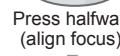
Record motion pictures and sound (motion pictures cannot be recorded without sound).

Microphone
(voice recording)



1 Set to

2 Start recording



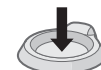
Press fully

Available recording time (approx.)



Elapsed time (approx.)

3 Finish



Press fully

- Ends automatically if memory is full.

■ Estimated recording time

➔ (P.92)

Note

- Zoom and CONT.AF (P.55) functions cannot be used during movie recording.
- Not compatible with MultiMediaCards.
- STABILIZER 'MODE2' cannot be used.
- Focus range is 5 cm and above for max. W/1 m and above for max. T. (2m unless max. T)
- Focus, zoom, and aperture value are fixed from the onset of recording.
- A maximum of approx. 2 GB can be recorded in any one session. To continue recording, press the shutter button again. Available recording time is calculated on a 2 GB basis (estimated).
- Recording may be terminated midway, depending on card type.

■ Aspect and picture quality

Set 'ASPECT RATIO' (P.51) before 'PICT.MODE' (P.52).

ASPECT	PICT.MODE	Picture size	Frames/sec
4:3	30fps VGA*	640×480	30/sec
	10fps VGA		10/sec
	30fps QVGA	320×240	30/sec
	10fps QVGA (For e-mail attachments)		10/sec
16:9	30fps 16:9*	848×480	30/sec
	10fps 16:9		10/sec

* '30fps': for smooth picture movement

'10fps': for longer motion pictures

* We recommend using a card of at least 10MB/s (as marked on its packaging, etc).

- Only QVGA-format motion pictures can be recorded to the built-in memory.

Useful features for travel

(TRAVEL DATE, WORLD TIME)

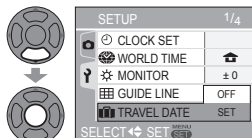
Record holiday day number or local time at overseas destination. Can be displayed during playback or stamped onto picture. (P.66)

● Clock must be set in advance (P.16).

Recording holiday duration (TRAVEL DATE)

1 Select 'TRAVEL DATE' from **SETUP** menu (P.18, 20)

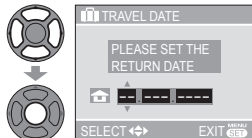
2 Select 'SET'



3 Set departure date



4 Set return date



Exit without entering if you do not wish to set a return date.

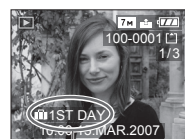
● Recording



displayed

Displayed for approx. 5 sec when switching from PLAYBACK to recording mode

● Playback



Days elapsed

Note

- To stop date recording, select 'OFF' in step ②.
- When destination is set in 'WORLD TIME' (see right), days elapsed are calculated based on local destination time.
- If settings are made before holiday, number of days to departure are displayed in orange with a minus sign (but not recorded).
- When TRAVEL DATE is displayed in white with a minus sign, the 'HOME' date is one day in advance of the 'DESTINATION' date (this is recorded).
- To print number of elapsed days:
 - Activate 'DATE STAMP' (P.66) before printing.
 - Use the supplied software (P.11).

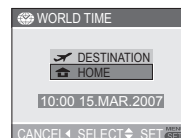
Registering local time at your overseas destination (WORLD TIME)

1 Select 'WORLD TIME' from **SETUP** menu (P.18,20)



● 'PLEASE SET THE HOME AREA' will be displayed when setting for the first time. In this case, press 'MENU/SET' and skip to step ③.

2 Select 'HOME'



3 Set your home area



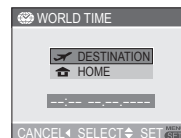
Current time

City/area name

Difference with GMT (Greenwich Mean Time)

● If setting for second (or later) time, press ►.

4 Select 'DESTINATION'



● Area settings can be aborted by pressing in steps ③ or ⑤.

5 Set destination area



Current time at selected destination

City/area name

Difference with home time

● If actual destination is unavailable, select based on 'difference with home time'.

6 Finish



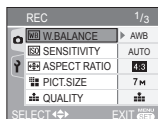
■ To set/release summer time




To set, go through steps ③, ⑤. (Press again to release)

■ Upon your return ➡ Go through steps ①, ②, ⑥, and press 'MENU/SET' to finish.

- Clock settings (P.16) will not be changed even if home summer time is set.
- Pictures recorded when set to destination will be displayed with in PLAYBACK mode.











- REC menu settings (P.18)
- Default setting outlined: 
- 'Quick setting' (P.57) is useful to easily call up frequently-used menus.

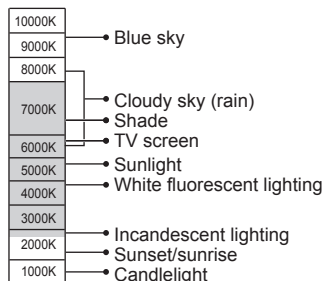
WB W.BALANCE


The same colour may appear more blue or more red depending on the light source (sun, lamps, etc). Colours can be adjusted to their natural appearance by adjusting the white balance.

■ **Applicable modes:**    SCN1 SCN2 


■ **Settings:**  (automatic) /  (outdoor, clear sky) /  (outdoor, cloudy sky) /  (outdoor, shade) /  (incandescent lighting) /  (uses value set in  SET) /  SET (set manually)

- 'AWB' operational range:  ('AWB' sets the optimum white balance automatically.)






- 'AWB' may not function normally in certain conditions, such as under red (e.g. candlelight), blue (e.g. TV screen), or a mixture of light sources, or with an absence of any colour close to white.
- We recommend setting to 'AWB' or ' SET' when under fluorescent lighting.

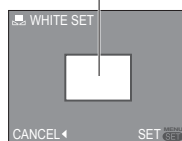
■ Setting white balance manually (SET)

- ① Select  SET and press 'MENU/SET'.
 - ② Point the camera towards a white object (e.g. paper) and press 'MENU/SET'.
 - ③ Press 'MENU/SET' twice.
(Or press shutter button halfway.)
- Making this setting will reset white balance fine adjustment (see below).

■ White balance fine adjustment (excluding 'AWB')

- ① Press  several times until 'WB ADJUST.' is displayed.
- ② Adjust with  if reds are strong, adjust with  if blues are strong.
- ③ Press 'MENU/SET' (or press shutter button halfway).

Only takes image of white objects within frame (step ②)








Changes to red (blue) when making fine adjustment



Detailed settings can be made for recording, such as colouring, sensitivity, aspect ratio, and picture size.

Items vary depending on mode.


- , , , , and  can be adjusted independently.
- Settings are remembered even if power is turned off.
- Settings remain applied when using flash photography.
- Even though the 'AWB' setting is fixed in 'UNDERWATER' scene mode (P.44), fine adjustments may still be made.
- Fine adjustments cannot be made when 'COL.MODE' (P.57) is set to 'COOL', 'WARM', 'B/W', or 'SEPIA'.

ISO SENSITIVITY

Set sensitivity to lighting. We recommend higher settings to take clear pictures in darker locations.

■ **Applicable modes:**   

■ **Settings:**  (automatic) / 100 / 200 / 400 / 800 / 1250
(if  mode: 'ISO LIMIT' 400 /  / 1250)

- AUTO: Automatically set with range up to 200 (640 when using flash) according to brightness.
- Maximum ISO sensitivity ('ISO LIMIT') can be set when using  mode.
- Setting guide

SENSITIVITY	100	1250
Location (recommended)	Bright (outdoors)	Dark
Shutter speed	Slow	Fast
Interference	Low	High

ASPECT RATIO

Aspect ratio of picture can be changed according to printing or playback format.

■ **Applicable modes:**    SCN1 SCN2 

■ **Settings:**  /  (Still pictures only) / 



Same as 4:3 TV or computer



Same as normal film camera






For playback on widescreen/high definition TV

- Edges may be cut off when printing – be sure to check in advance (P.88).

PICT.MODE

Set picture quality for motion pictures (P.47).

■ **Applicable modes:**    SCN1 SCN2

■ **Settings:**

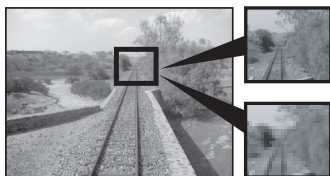
Aspect ratio **4:3** : **30fps VGA** / 10fps VGA / 30fps QVGA / 10fps QVGA
(P.51) **16:9** : **30fps 16:9** / 10fps 16:9

- '30fps': smoother movement; '10fps': longer recording time

PICT.SIZE

Set size of picture. Number of pictures which can be recorded depends on this setting and on 'QUALITY' (see right). (P.92)

- Picture size setting guide



Larger picture size = Crisper picture
(lower recording capacity)

Smaller picture size = Coarser picture
(higher recording capacity)

■ **Applicable modes:**    SCN1 SCN2

■ **Settings:**

ASPECT RATIO	Picture size						
4:3	7M *1	3072 x 2304	5M	EZ *2	2560 x 1920	3M	EZ 2048 x 1536
	2M	EZ 1600 x 1200	1M	EZ	1280 x 960	0.3M	EZ 640 x 480
3:2	7M *3	3216 x 2144	4.5M	EZ	2560 x 1712	2.5M	EZ 2048 x 1360
16:9	6M *4	3328 x 1872	3.5M	EZ	2560 x 1440	2M	EZ 1920 x 1080

- Picture sizes for DMC-TZ2 model are as follows.

*1: 6M (2816 x 2112) *2: None *3: 6M (2976 x 1984) *4: 5.5M (3072 x 1728)

- Extra optical zoom (P.27) can be used for picture sizes indicated with **EZ**.

- **EZ** is not displayed in the 'HIGH SENS.' scene mode (P.44) (as extra optical zoom cannot be used).

- Mosaic effect may appear depending on subject and recording conditions.


QUALITY

Set compression ratio for saving. Number of pictures which can be recorded depends on this setting and on 'PICT.SIZE' (see left). (P.92)

■ **Applicable modes:**    SCN1 SCN2

■ **Settings:**

 : Fine (priority to picture quality)

 : Standard (increases recording capacity by limiting standard picture size and picture quality)

AUDIO REC.

Sounds can also be recorded with pictures. This is useful for conversation or memo recording.

■ **Applicable modes:**    SCN1 SCN2

■ **Settings:**

OFF : No sound recording

ON : Record approx. 5 seconds of sound ( displayed on screen)


- To cancel recording: Press 'MENU/SET'.
- Cannot be used with 'BURST' (P.54), 'STARRY SKY' (P.44) and 'AUTO BRACKET' (P.38, DMC-TZ3 only).
- 'DATE STAMP', 'RESIZE', 'TRIMMING', and 'ASPECT CONV.' cannot be used with pictures with audio.
- Settings also reflected in 'AUDIO REC.' (P.60) in REC ON CLIPBOARD menu.

METERING MODE

Method of measuring exposure (P.38) can be changed.

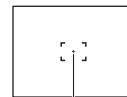
■ **Applicable modes:**     

■ **Settings:**

 : (Multiple: Measures brightness of whole screen. Normally recommended)

 : (Centre weighted: Measures entire picture evenly, with focus on centre of screen)

 : (Spot: Measures subject within spot metering target)



Spot metering target

AF AF MODE

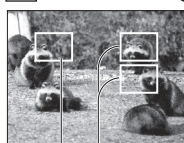
Method of aligning focus can be changed according to position and number of subjects.

■ **Applicable modes:**    SCN1 SCN2 

■ **Settings:**  /  /  /  (H: High-speed focus)

- Subject not in centre of picture (AF area displayed after focuses completely aligned)

 9-area-focusing



AF area

Automatically focuses on any of 9 points

 3-area-focusing (High speed)




AF area

Automatically focuses on either side or centre.

- Determined position for focus

 1-area-focusing (High speed)

 1-area-focusing



AF area



Focuses on AF area in centre of picture. (Recommended for when focus is difficult to align)

 Spot-focusing






Focuses on smaller, limited area.

Spot AF area.

- When using  or , picture may freeze momentarily before focus is aligned.
- AF area becomes larger in dark locations or when using digital zoom, etc.



AF area







- Use  or  if focus is difficult to align with .

BURST

Enables a rapid succession of photographs to be taken. Succession of photographs taken while shutter button is held down.

■ **Applicable modes:**    SCN1 SCN2

■ Settings:

BURST setting	Speed *1	No. of pictures *2
OFF	No burst	
 (High speed) *3	3 pictures/sec	 Fine: Max. 5
 (Low speed) *3	2 pictures/sec	 Standard: Max. 7
 *3,  *4 (Free)	Approx. 2 pictures/sec *5	Until card/built-in memory is full

*1: Depends on shutter speed and 'SENSITIVITY' settings.

*2: When using self-timer: Fixed at 3 pictures

*3: DMC-TZ3 only. *4: DMC-TZ2 only.

*5: DMC-TZ3: Becomes progressively slower. (Delayed timing depends on card type, picture size, and QUALITY.)

DMC-TZ2: Depends on type of card, 'PICT.SIZE' (P.52), and 'QUALITY' (P.53).

- Burst speed may be reduced if using SENSITIVITY (P.51) of 'ISO400' or greater, or if shutter speed is reduced in darker locations.
- This feature cannot be used with the flash (flash mark turns red, P.36) or with 'AUTO BRACKET' (P.38, DMC-TZ3 only).
- Settings will be stored even if power is turned off.
- Focus is fixed from first picture.
- Exposure and white balance are set as follows:
 - DMC-TZ3
 - High speed: Setting fixed from first picture.
 - Low speed, Free: Reset for each picture.
 - DMC-TZ2
 - Reset for each picture.
- When using BURST while following a moving subject in locations with major differences in brightness (e.g. indoor to outdoor), exposure stabilization may require a little time, and optimal exposure may not be achieved.
- Auto review performed regardless of 'AUTO REVIEW' setting.




C-AF CONT.AF

Focus is continually adjusted according to movement of subject.
(Increases battery consumption)

■ **Applicable modes:**    SCN1 SCN2 

■ Settings:

OFF : Not set **ON** : Set ( displayed on screen)

- Focus alignment may take time if zoom is suddenly changed from max. W to max. T, or if suddenly moving closer to subject.
- Press shutter button halfway if focus is difficult to align.
- When using , , or  'AF mode', focus will be aligned quickly when shutter button is pressed halfway.
- Focus is not re-adjusted during motion picture recording.

AF* AF ASSIST LAMP

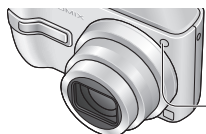
Illuminates lamp when dark to facilitate focus alignment.

■ **Applicable modes:**    SCN1 SCN2 

■ **Settings:**

OFF : Lamp off (taking pictures of animals in dark, etc)

ON : Lamp illuminated with halfway press of shutter button
(AF* and larger AF area displayed)



- Do not cover or look at lamp from close range
- Fixed to 'ON' when using SIMPLE MODE ♥.
- Effective distance: 1.5 m


Lamp

SLOW SHUTTER

Shutter speed can be reduced further to take bright pictures in dark locations.

■ **Applicable modes:**   SCN1 SCN2

■ **Settings:** **1/8-** (normally recommended) / 1/4- / 1/2- / 1-


- Slower shutter speeds allow for brighter pictures but increase risk of jitter, so we recommend using a tripod and the self-timer (P.35).
- Can be used with NIGHT PORTRAIT (P.42) to brighten both night scene and subjects.
-  displayed on screen for settings other than '1/8-'.

D.ZOOM

Multiplies effect of optical zoom or extra optical zoom by up to 4 times. (P.27).

■ **Applicable modes:**   SCN1 SCN2 

■ **Settings:** **OFF** : (Do not use) / **ON** : (Use)

- This cannot be set when using SIMPLE MODE ♥, Intelligent ISO mode , or the 'SPORTS', 'BABY', 'PET', or 'HIGH SENS.' scene modes.

COL. MODE

Set colour effects.

■ **Applicable modes:**    

■ **Settings:** **STANDARD** / NATURAL (soft) / VIVID (sharp) / COOL (more blue) / WARM (more red) / B/W / SEPIA


- If interference is noticeable in dark locations: Set to 'NATURAL'.
- MOTION PICTURE mode: 'NATURAL' and 'VIVID' cannot be selected.
- White balance fine adjustment cannot be used when using 'COOL', 'WARM', 'B/W', or 'SEPIA'.
- Settings for still pictures and motion pictures are made separately.

CLOCK SET

Set the clock. Same function as that in SETUP menu (P.16).

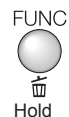
Quick setting

The following items can be quickly called up from REC menu. Items vary depending on mode.

- BURST (P.54) ● W.BALANCE (P.50) (excluding  SET) ● SENSITIVITY (P.51)
- ASPECT RATIO (P.51) ● PICT.SIZE (P.52) ● QUALITY (P.53)

1 Set to one from '   SCN1 SCN2 

2 Display 'Quick setting'

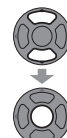


Quick setting

3 Select item

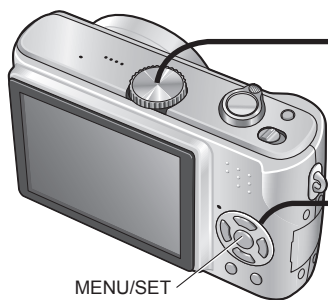


4 Select setting



12 Taking/viewing clipboard pictures (CLIPBOARD)

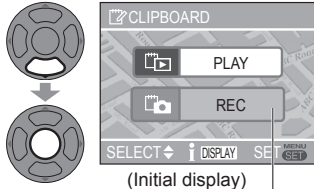
Taking clipboard pictures (clipboard recording)



1 Set to



2 Select 'REC'



(Initial display)
Highlight 'REC' in orange

3 Take a clipboard picture



Press halfway
(align focus)



Press fully
(take picture)

- Represents built-in memory used entirely for clipboard pictures

Picture size	1M	2M
Pictures	36	24

Recording capacities above are reduced if pictures are recorded to built-in memory (P.26) in other recording modes (e.g. 'CAM').

- To view clipboard pictures (clipboard playback):
- To change picture size → (P.60)

- Functions unavailable:
BURST, D.ZOOM, AUTO BRACKET(DMC-TZ3 only), WB ADJUST, CONT.AF
- The settings for the following functions are fixed.
ASPECT RATIO: 4:3
QUALITY:
SELFTIMER: OFF/2SEC.
SENSITIVITY: AUTO
Functions other than those above are the same as fixed in SIMPLE MODE (P.28). (However, STABILIZER (P.39) settings may be made.)
- If internal memory is full
 - Delete unwanted clipboard pictures in PLAY ON CLIPBOARD mode. (Copy required pictures onto card → P.60)
 - Remove card and use PLAYBACK mode to delete pictures from other recording modes (e.g. 'CAM').
- Beware of copyrights, etc (P.2)

Useful for taking pictures of timetables and maps instead of taking memos. Regardless of presence of card, pictures will always be saved to clipboard folder of built-in memory, so that they can be distinguished from normal pictures and viewed immediately.

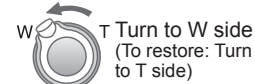
Viewing clipboard pictures (clipboard playback)

Select 'PLAY' in step 2 on left

■ View 1 picture at a time



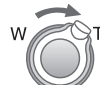
■ View 9 pictures on screen



- Select a clipboard picture and press 'MENU/SET' to display single screen.

■ To zoom in (playback zoom) → (P.31)

Expand



Change position



● To register zoom enlarged size and position (Zoom mark):

Useful for enlarging and saving parts of maps, etc.

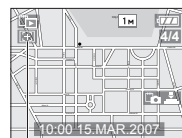
After selecting enlarged size and position



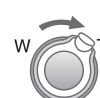
Zoom mark
Displayed on registered pictures

- To change zoom and position: Repeat the above
- To finish zoom mark setting: Restore zoom to original (normal) ratio

● To view registered ratio and position:



Display picture with



(No need to manually enlarge or move)



Immediately displayed at recorded size and position

■ To delete clipboard pictures → (P.32)

- Both original picture and picture with zoom mark will be deleted.
- Picture can be deleted even while zoomed in.

Note

- During clipboard recording: Press shutter button halfway.
- PLAY menu (P.64) functions cannot be used.
Pictures taken in other recording modes, modified with ROTATE (P.66) and copied (P.73) as clipboard pictures will be displayed in their original form (before rotation).
- 'VIDEO OUT' (P.79) and printing (P.76) functions cannot be used during clipboard playback.

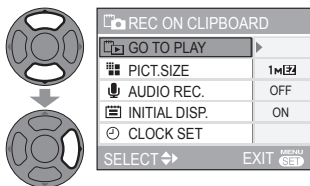
12 Taking/viewing clipboard pictures (Continued)

CLIPBOARD menu

Press 'MENU/SET' while recording or viewing to display menu.

REC ON CLIPBOARD menu

Select item

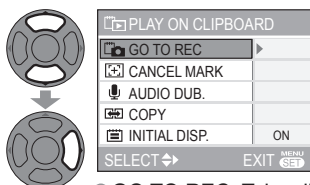


Default setting:

- **GO TO PLAY:** View clipboard pictures.
- **PICT.SIZE:** Change picture size. (2M EZ / 1M EZ)
Select picture size with ▲▼ and press 'MENU/SET'.
- **AUDIO REC.:** Record sound (5 seconds) simultaneously. ([OFF] / [ON])
Select setting with ▲▼ and press 'MENU/SET'.
Settings will also be reflected in 'AUDIO REC.' (P.53) in REC menu.
- **INITIAL DISP.:** Select to display/not display initial display (P.58).
([OFF] / [ON])
Select setting with ▲▼ and press 'MENU/SET'.
- **CLOCK SET:** Same function as that in SETUP menu (P.16).

PLAY ON CLIPBOARD menu

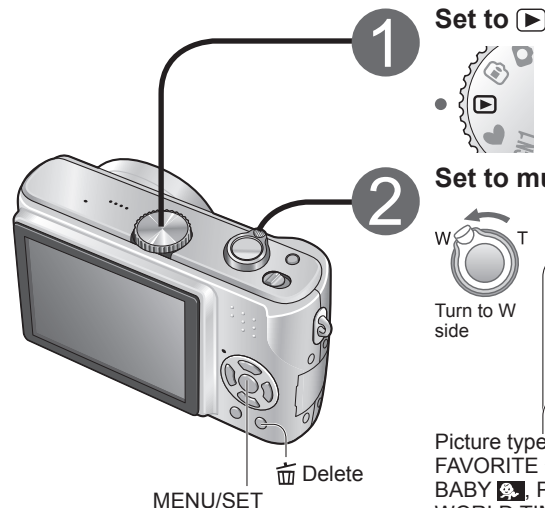
Select item



- **GO TO REC:** Take clipboard pictures.
- **CANCEL MARK:** Cancel zoom position.
① Select clipboard picture with ◀▶.
② Cancel with ▼.
- **AUDIO DUB.:** Add sound to previously-taken clipboard picture.
① Select clipboard picture with ◀▶.
② Record/stop with ▼.
- **COPY:** Copy single pictures from clipboard to card.
(Zoom mark will not be copied.)
① Select clipboard picture with ◀▶ and press ▼.
② Select 'YES' with ▲▼ and press 'MENU/SET'.
- **INITIAL DISP.:** Same as in 'REC ON CLIPBOARD' (above)

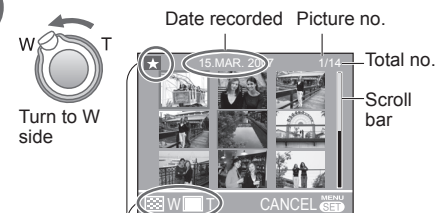
1 Viewing as list (Multi playback/Calendar playback)






You can view 9 (or 25) pictures at once (multi playback), or view all pictures taken on a certain date (calendar playback). (To view clipboard pictures as a list → P.59)



1 Set to T

2 Set to multiple screen display

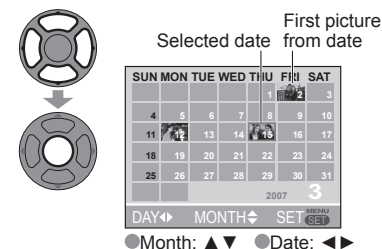


- Picture type**
FAVORITE ★, MOTION PICTURE ,
BABY , PET , TRAVEL DATE ,
WORLD TIME , DATE STAMP 
- Turn lever to change between 1 screen → 9 screens → 25 screens → calendar screen.
 - To restore: Turn to T side.

Note

- Pictures edited on a computer may not be displayed correctly or may show incorrect dates.
- Only one month of pictures is displayed on calendar screen. Pictures taken without clock settings are displayed with a date of 1 January, 2007 (P.16).
- **When displaying pictures taken on same day on 9 screens in calendar playback, selecting 'ALL DELETE' or 'ALL DELETE EXCEPT ★' will delete pictures taken on other days as well.**
- Cannot be displayed rotated.

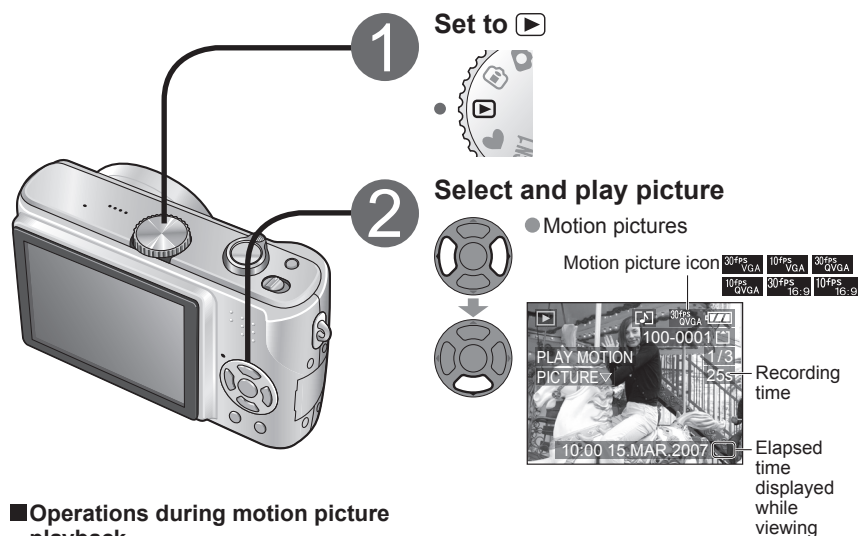
Select date from calendar screen



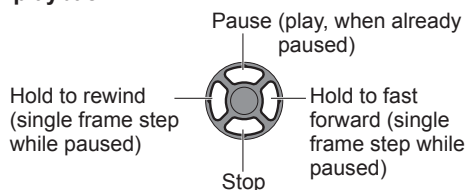
3 Select picture with ▲▼◀▶ and press 'MENU/SET'

- Displayed on 9 screens.
Press 'MENU/SET' to restore to single screen.

2 Viewing motion pictures/ pictures with audio



Operations during motion picture playback



To adjust volume → 'VOLUME' (P.22)

Note

- Pictures can be viewed using 'QuickTime' on the CD-ROM (supplied).
- Pictures taken on other devices may not be played back correctly.
- When using a high capacity card, it is possible that fast rewinding may be slower than usual.
- Playback zoom cannot be used during motion picture playback/pausing or audio playback.
- To create pictures with audio → 'AUDIO REC.' (P.53), 'AUDIO DUB.' (P.70)

3 Creating still pictures from motion pictures (DMC-TZ3 only)

1 During playback, pause at desired moment (see left for playback method)



- To continue playback:
- To advance single frame:

To make single picture from single frame when paused (go to step 2)

To make single picture from 9 surrounding frames



Turn to W side



- Frame step:
To advance by 3 frames:
- To advance by 1 frame:

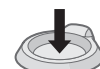
- To change no. of frames/second: Turn further to W side (turn to T side to restore).

PICT.MODE			Frames/sec
30fps QVGA	30fps VGA	30fps 16:9	30→15→10→5
10fps QVGA	10fps VGA	10fps 16:9	10→5

e.g. 15 frames: Display frames from each 1/15 second as still pictures

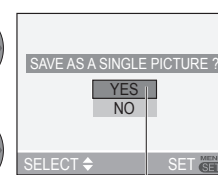
- 'RESIZE' (P.70) and 'ASPECT CONV.' (P.72) cannot be used for single pictures created from 9 screens.

2 Create still picture



Press fully

3 Select 'YES'



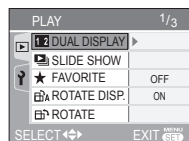
Highlight 'YES' in orange

Picture size of still pictures created

PICT.MODE	1 screen	9 screens
30fps VGA	0.3M	2M
30fps QVGA	0.3M	1M
30fps 16:9	2M	2M

- 'QUALITY' fixed to (P.53).

4 Using PLAY menu



- PLAY menu settings (P.18)
- Pictures will be selected from built-in memory (not clipboard) if no card is inserted.

(Screen example: DMC-TZ3)

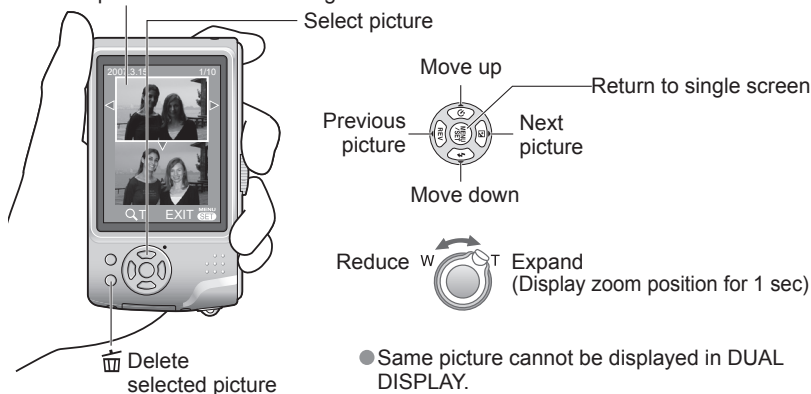
12 DUAL DISPLAY (DMC-TZ3 only)

Displays 2 pictures vertically. Useful for comparing pictures.

1 Select 'DUAL DISPLAY' from PLAY menu (P.17, 18)

2 View pictures

Selected pictures outlined in orange



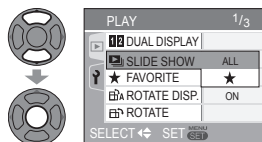
- Same picture cannot be displayed in DUAL DISPLAY.

SLIDE SHOW

Automatically scrolls through pictures during playback. Recommended for when viewing on TV screen.

1 Select 'SLIDE SHOW' from PLAY menu (P.17, 18)

2 Select either 'ALL' or '★'. (Go to step 3 if 'FAVORITE' is OFF)

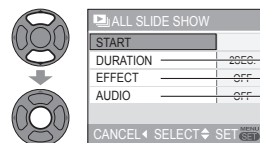


- ALL: Play all
- ★: Play pictures set as FAVORITE (P.65)

(Screen example: DMC-TZ3)

Various playback and editing features for your pictures.
Set mode dial to

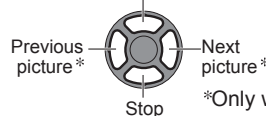
3 Select 'START'



- Preferences
- Playback duration (sec)
- 'MANUAL' only available when '★' selected
- Picture change effect (not available with 'MANUAL')
- Slide
- Diagonal
- From centre to corners
- MIX Random effect
- Set to 'ON' to play audio in pictures with audio

Operations during slide show

Pause/play
(not available with MANUAL)



*Only while paused or during MANUAL

- Motion pictures cannot be played back in slide show.

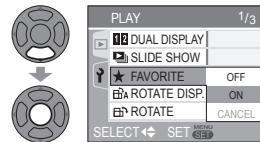
★ FAVORITE

Mark your favourite pictures and enable the following functions.

- Favourites-only slide show (P.64)
- Delete all except favourites (useful for when printing in shop, etc) (P.32)

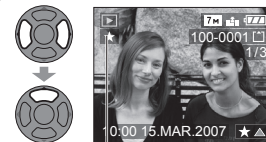
1 Select 'FAVORITE' from PLAY menu (P.17, 18)

2 Select 'ON'



(Screen example: DMC-TZ3)

4 Select picture (repeat)



- ★ displayed when set (not displayed when 'OFF').
- Up to 999 pictures can be selected.
- To release → Press ▲ again.

3 Close menu



■ To release all → Select 'CANCEL' with ▼ in step 2 → Select 'YES' with ▲, and press 'MENU/SET' → Press 'MENU/SET' to finish.

- It may not be possible to set pictures taken with certain other devices as favourites.
- Setting/release can also be made with supplied software (P.11).

4 Using PLAY menu (Continued)

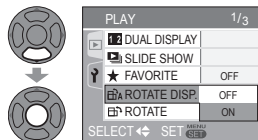
ROTATE DISP. ROTATE

Automatically rotate portrait pictures, manually rotate pictures by 90°.

ROTATE DISP.

Display with automatic rotation

- 1 Select 'ROTATE DISP.' from PLAY menu (P.17, 18)
- 2 Select 'ON'



(Screen example: DMC-TZ3)

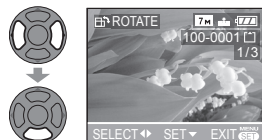
■To complete ➡ Press 'MENU/SET'.

- When set to 'OFF', 'ROTATE' also cannot be used.

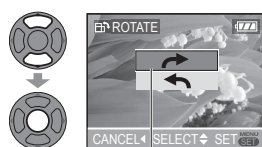
ROTATE

Display with manual rotation

- 1 Select 'ROTATE' from PLAY menu (P.17, 18)
- 2 Select picture



- 3 Select direction to rotate



➡ : Rotate 90° clockwise
⬅ : Rotate 90° anticlockwise

■To complete ➡ Press 'MENU/SET' twice.

- 'ROTATE DISP.' and 'ROTATE' cannot be used with motion pictures.
- 'ROTATE' cannot be used with protected pictures (P.69).
- Some pictures taken facing up or facing down may not be rotated automatically.
- It may not be possible to rotate pictures taken with certain other devices.
- Pictures cannot be rotated during multi playback (P.61).
- Will only be displayed rotated on computer if in Exif-compatible (P.90) environment (OS, software).

DATE STAMP

Picture date, age (P.42, 44), or TRAVEL DATE (P.48) stamped to bottom right of picture. Ideal for regular size printing.

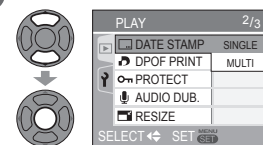
- Picture size will be reduced if greater than 3M.

ASPECT RATIO	PICT. SIZE	After DATE STAMP
4:3	7M, 5M (6M only for DMC-TZ2)	3M
3:2	7M (6M for DMC-TZ2), 4.5M	2.5M
16:9	6M (5.5M for DMC-TZ2), 3.5M	2M

- Picture will become slightly grainier.

- 1 Select 'DATE STAMP' from PLAY menu (P.17, 18)

- 2 Select 'SINGLE' or 'MULTI'



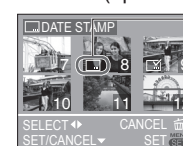
(Screen example: DMC-TZ3)

- 3 Select picture

- SINGLE

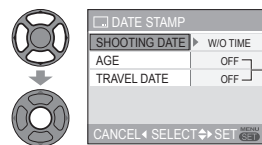


- MULTI (up to 50 pictures)



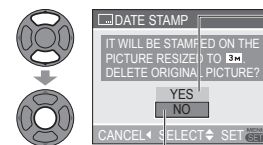
- DATE STAMP setting
- displayed where DATE STAMP already set
- To release setting: ▼
- To complete settings: Press 'MENU/SET'.

- 4 Select items and make settings for each



- Select 'ON' for AGE/TRAVEL DATE stamp.

- 5 Select whether to delete original picture (Screen varies according to picture size, etc)



- ‘YES’: Apply DATE STAMP (Original picture deleted)
- Select ‘NO’ for protected pictures (P.69).
- ‘NO’: Create new picture with DATE STAMP (Original picture remains)

■To complete ➡ Press 'MENU/SET' twice.

- Cannot be used with pictures taken on other devices, pictures taken without setting clock, motion pictures, or pictures with audio.
- After DATE STAMP is applied, pictures cannot be resized (P.70) or trimmed, (P.71), and ASPECT CONV. (P.72), DATE STAMP and DPOF date printing settings cannot be changed of pictures.
- Use playback zoom to check stamped date (P.31).
- Characters may be cut off on certain printers.
- Do not make date printing settings in shop or on printer for pictures with date stamps. (Date printing may be overlapping.)

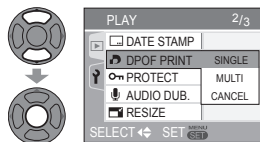
4 Using PLAY menu (Continued)

DPOF PRINT

Picture/picture no./date printing settings can be made for when printing with DPOF print-compatible shops or printers. (Ask at shop to check compatibility)

1 Select 'DPOF PRINT' from PLAY menu (P.17, 18)

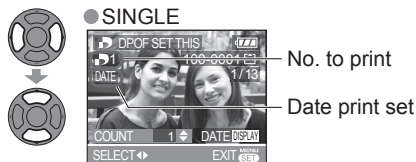
2 Select 'SINGLE' or 'MULTI'



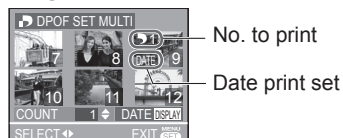
(Screen example: DMC-TZ3)

3 Select picture and set number to print (repeat)

● SINGLE



● MULTI



● Date print setting/release: Press 'DISPLAY' (P.12).
(Cannot be set on pictures with date stamps (P.66).)

■ To complete ➡ Press 'MENU/SET' twice.

■ To release all ➡ Select 'CANCEL' with ▼ in step 2 → Select 'YES' with ▲, and press 'MENU/SET' → Press 'MENU/SET' to finish.

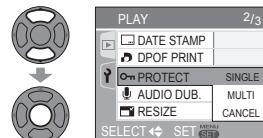
- When using PictBridge-compatible printers, check settings on actual printer as these may take priority over camera settings.
- To print from built-in memory at a shop, first copy pictures to card (P.73) before making settings.
- DPOF print settings may not be made to non-DCF (P.90) files.
- Settings can only be made for one picture at a time.
- If DPOF settings have been made on another device, release these first before making settings again with this camera.
- Date printing settings will be cancelled when applying date stamps (P.66).

PROTECT

Set protection to disable picture deletion. Prevents deletion of important pictures.

1 Select 'PROTECT' from PLAY menu (P.17, 18)

2 Select 'SINGLE' or 'MULTI'



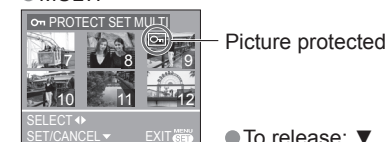
(Screen example: DMC-TZ3)

3 Select picture and make setting

● SINGLE



● MULTI



■ To complete ➡ Press 'MENU/SET' twice.

■ To release all ➡ Select 'CANCEL' with ▼ in step 2 → Select 'YES' with ▲, and press 'MENU/SET' → Press 'MENU/SET' to finish.

- May not be effective when using other devices.
- Formatting (P.73) will cause even protected files to be deleted.
- To cancel while releasing all: Press 'MENU/SET'.

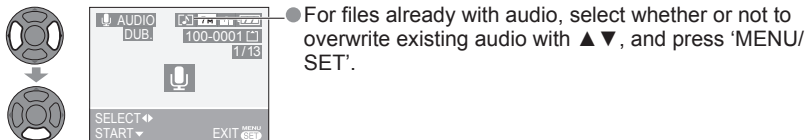
4 Using PLAY menu (Continued)

AUDIO DUB.

Add audio to previously taken pictures.

1 Select 'AUDIO DUB.' from PLAY menu (P.17, 18)

2 Select image and start recording



3 Stop recording



Recording will automatically end after 10 seconds, even if ▼ is not pressed.

■To complete ➡ Press 'MENU/SET' twice.

- Cannot be used with motion pictures or protected pictures (P.69).
- May not be compatible with pictures taken on other devices.

RESIZE

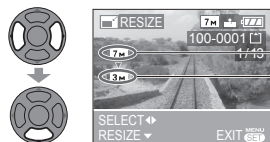
Picture size can be reduced to facilitate e-mail attachment and use in homepages, etc. (Picture of minimum picture size for each aspect setting cannot be resized.)

1 Select 'RESIZE' from PLAY menu (P.17, 18)

2 Select picture

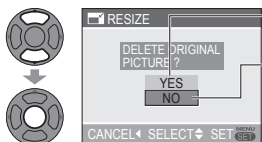


3 Select size



Current size
Size after change

4 Select whether to delete original picture



'YES': Resize (Original picture deleted)
● Select 'NO' for protected pictures (P.69).
'NO': Create new, resized picture (Original picture remains)

■To complete ➡ Press 'MENU/SET' twice.

- Cannot be used with motion pictures, pictures with audio, or pictures with date stamp.
- May not be compatible with pictures taken on other devices.

TRIMMING

Enlarge your pictures and trim unwanted areas.

1 Select 'TRIMMING' from PLAY menu (P.17, 18)

2 Select picture



3 Select area to trim



Expand
Reduce



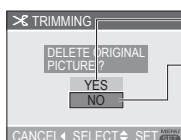
Change
position



4 Trim



5 Select whether to delete original picture



'YES': Trim (Original picture deleted)
● Select 'NO' for protected pictures (P.69).
'NO': Create new, trimmed picture (Original picture remains)

■To complete ➡ Press 'MENU/SET' twice.

- Picture quality is reduced after trimming.
- Cannot be used with motion pictures, pictures with audio, or pictures with date stamp.
- May not be compatible with pictures taken on other devices.

4 Using PLAY menu (Continued)

ASPECT CONV.

Convert pictures taken in 16:9 to 3:2 or 4:3 for printing. (P.51)
(Cannot be used with pictures not taken in 16:9.)

- Select 'ASPECT CONV.' from PLAY menu** (P.17, 18)
 - Select 3:2 or 4:3**
 - Select picture**
 - Select horizontal position and convert**

Changes to outlined size
● Move portrait pictures using ▲▼.
 - Select whether to delete original picture**

● 'YES': Convert aspect ratio (Original picture deleted)
● Select 'NO' for protected pictures (P.69).
● 'NO': Create new picture with converted aspect ratio (Original picture remains)
- To complete** ➡ Press 'MENU/SET' twice.
- Picture size may be increased after aspect ratio is changed.
 - Cannot be used with motion pictures, pictures with audio, or non-DCF files (P.90).
 - May not be compatible with pictures taken on other devices.

COPY

Copy between built-in memory and memory card, or from memory card to clipboard folder.

- Select 'COPY' from PLAY menu** (P.17, 18)
 - Select copy method (direction)**

➡ : Copy all pictures (except clipboard) from built-in memory to card (go to step 4).
 ➡ : Copy 1 picture at a time from card to built-in memory.
 ➡ : Copy 1 picture at a time from card to clipboard folder (in built-in memory) (not motion pictures).
 - Select picture (for ➡ and ➡)**
 - Select 'YES' (Screen shown is example)**

● To cancel during ➡ : Press 'MENU/SET'.
- To complete** ➡ Press 'MENU/SET' twice.
- To copy to a card, use a card with a capacity of at least 12.7MB.
 - Copying pictures may take several minutes. Do not turn off power or perform other operations during copying.
 - DPOF settings (P.68) will not be copied if identical folder or file numbers are present in the copy destination.
 - Use 'COPY' on PLAY ON CLIPBOARD menu to copy clipboard pictures to card. (P.60)
 - Only pictures from Panasonic digital cameras may be copied.

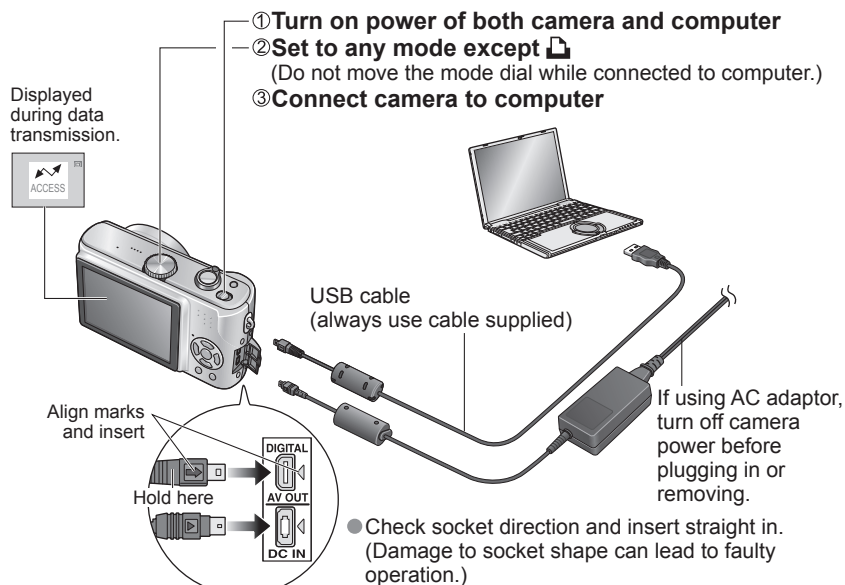
FORMAT

Use when 'BUILT-IN MEMORY ERROR' or 'MEMORY CARD ERROR' appears. This requires a sufficiently charged battery (P.14) or an adaptor (DMW-AC5G, optional). To format built-in memory, first remove memory card.
(If card is inserted, only card will be formatted.)

- Select 'FORMAT' from PLAY menu** (P.17, 18)
 - Select 'YES'**
- ➡
- All picture data, including clipboard (P.58) and protected (P.69) pictures, will be deleted.
 - Do not turn off power or perform other operations during formatting.
 - Consult retailer if format cannot be successfully completed.
 - Formatting the built-in memory may take several minutes. Press 'MENU/SET' to cancel (all pictures will still be deleted).

1 Using with computer

- Preparations:
- Ensure that you have a sufficiently-charged battery, or an AC adaptor attached (DMW-AC5G, optional).
 - Remove memory card if wishing to use built-in memory.



Caution

- Do not use any other USB connection cables except the supplied one.
- If using Windows 98/98SE, install USB driver software when connecting for first time.
- For more details, consult the separate 'PC connection' or your computer operating manual.
- Do not disconnect the USB cable while 'ACCESS' is displayed.
- Turn off power and disconnect USB cable before inserting or removing memory cards.
- When using USB cable with Windows 2000, use 'Safely Remove Hardware' application in task tray before inserting card.
- If the battery display flashes red, cancel the connection from your computer, and disconnect the USB cable. (Recharge the battery before reconnecting.)
- To play motion pictures on your computer
 - Use the 'QuickTime' software on the supplied CD-ROM. (Installed as standard on Macintosh)
 - If using Windows 98/98SE/Me, download and install 'QuickTime 6.5.2 for PC' from the following website: <http://www.apple.com/support/quicktime/>
 - Save motion pictures to your computer before viewing.
- Only built-in memory can be accessed if connecting in CLIPBOARD mode.

Connect to your computer to save, print, and e-mail your pictures. (Using the supplied software is recommended. (P.11).)

Folder and file names on computer

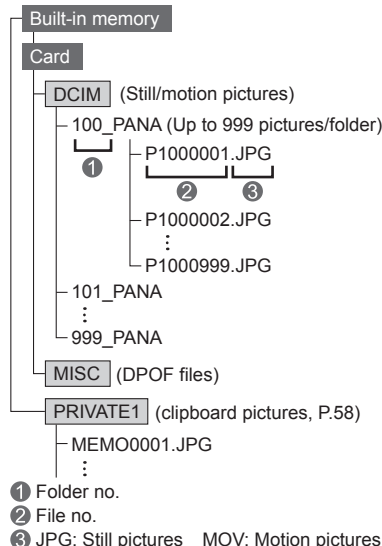
Windows

Drives are displayed in 'My Computer' folder.

Macintosh

Drives are displayed on the desktop.
(Displayed as 'LUMIX', 'NO_NAME', or 'Untitled'.)

Folder structure



- To reset file or folder numbers: 'NO. RESET' (P.22)
- New folders are created in the following cases:
 - When pictures are taken to folders containing files numbered 999.
 - When using cards already containing the same folder number (including pictures taken with other cameras, etc)
 - When recording after performing NO. RESET (P.22)
- File may not be able to be played back on camera after changing file name. (Number can be changed without changing number of digits.)

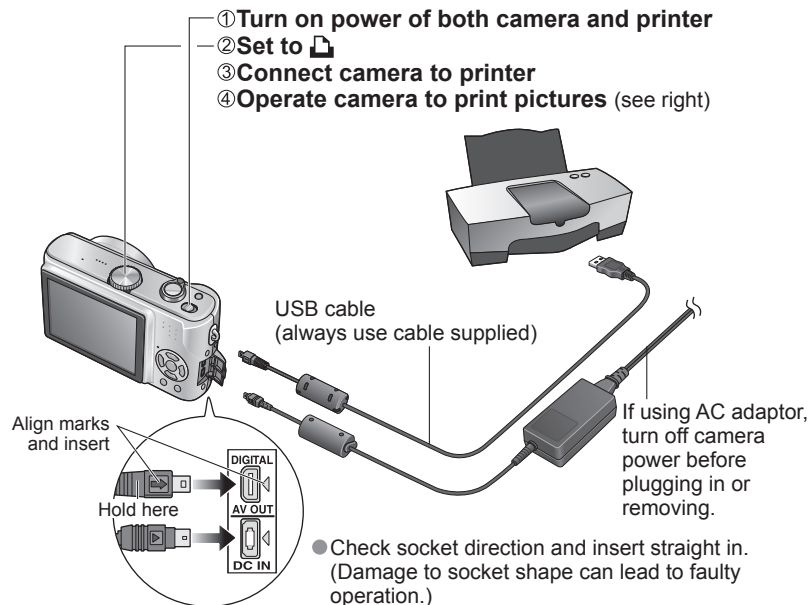
Connecting with PTP (Picture Transfer Protocol)

If using Windows XP or Mac OS X, you can connect to your computer in PTP mode by setting to PRINT mode .

- Pictures can only be read on computer from camera.
- It may not be possible to read if there are 1000 or more pictures on the card.
- The message (PLEASE RE-CONNECT THE PRINTER.) will be displayed if you set to after connecting to your computer. Set the mode dial to a different mode, and reconnect the camera after 'ACCESS' disappears.

Preparations: ● Ensure that you have a sufficiently-charged battery, or an AC adaptor (DMW-AC5G, optional).

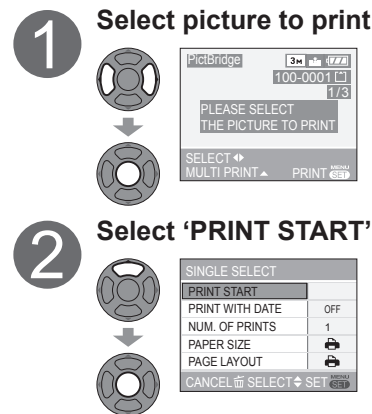
- Remove memory card to use pictures in built-in memory.
- Adjust settings on your printer (print quality, etc) as required.



- Do not use any other USB connection cables except the supplied one.
- Do not disconnect the USB cable when the cable disconnection icon is displayed (may not be displayed with some printers).
- Turn off power and disconnect USB cable before inserting or removing memory cards.
- If you have connected the camera without setting it to PictBridge, remove the USB cable, and set the camera to PictBridge before reconnecting. (Power may need to be reset on some printers.)
- If you change to a different mode after connecting, an error message will be displayed. Set the mode dial back to PictBridge, cancel any printing, and disconnect the USB cable.
- To print clipboard pictures, first copy (P.60) to the memory card.
- If the battery display flashes red, cancel printing and disconnect the USB cable (reconnect again after charging battery).
- An orange ● displayed during printing indicates an error message. Check the printer.
- Print may be divided into different stints if printing several pictures. (Remaining sheets display may differ from set number.)

You can connect directly to a PictBridge-compatible printer for printing.

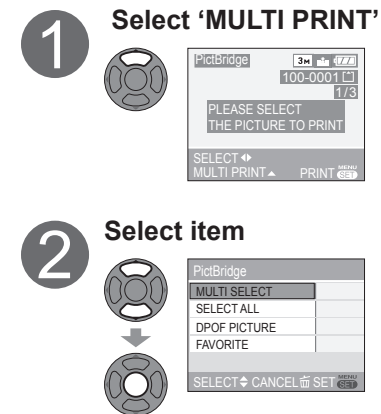
■ Printing single pictures



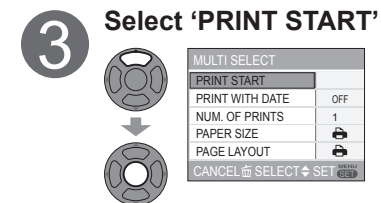
■ To cancel print ➡ Press 'MENU/SET'

- Print settings → (P.78)
- Disconnect USB cable after printing.

■ Printing multiple pictures



See below for details











Select 'YES' if print confirmation screen is displayed.

■ Multiple picture printing items

Item	Details
MULTI SELECT	Scroll between pictures with ◀▶, select pictures with ▼ (displayed) to print. Press ▼ again to release selection. Press 'MENU/SET' when selection is complete.
SELECT ALL	Print all pictures.
DPOF PICTURE	Print pictures selected in 'DPOF PRINT'. (P.68)
FAVORITE	Print pictures selected as 'FAVORITE'. (Displayed if 'FAVORITE' (P.65) set)

■ Print settings

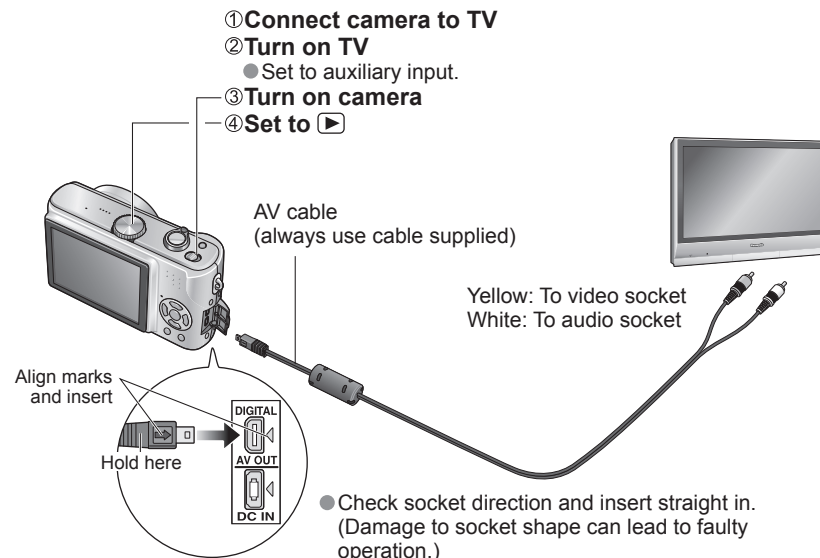
Item	Settings
PRINT WITH DATE	OFF/ON
NUM. OF PRINTS	Set number of pictures
PAPER SIZE	<p> (printer takes priority)</p> <p>L/3.5"×5" (89 × 127 mm)</p> <p>2L/5"×7" (127 × 178 mm)</p> <p>POSTCARD (100 × 148 mm)</p> <p>A4 (210 × 297 mm)</p> <p>CARD SIZE (54 × 85.6 mm)</p> <p>10×15cm (100 × 150 mm)</p> <p>4"×6" (101.6 × 152.4 mm)</p> <p>8"×10" (203.2 × 254 mm)</p> <p>LETTER (216 × 279.4 mm)</p>
PAGE LAYOUT	<p> (printer takes priority) /  (1 picture, no border) /  (1 picture, with border) /  (2 pictures) /  (4 pictures)</p>

- Items may not be selected if incompatible with printer.
- To print to paper sizes/layouts not supported by this camera, set to  and make settings on the printer.
(Consult your printer's operating manual.)
e.g. To print the same picture 4 times on 1 sheet
Layout setting:  (4 screens) Print copies: 4
(Setting print copies to 1 will print 4 different pictures.)
- **Date printing**
 - If printing in shop: Make DPOF settings (P.68) and request printing 'with dates'.
 - If using printer: Make DPOF settings (P.68) and use a printer compatible with date printing.
 - If using the supplied software: Set to 'with dates' in the print settings.
 - Use the supplied software to print age for 'BABY' (P.42) or 'PET' (P.44) scene modes, or days elapsed in 'TRAVEL DATE' (P.48). (These cannot be requested in shops.)
 - Even if DPOF settings are made, dates may not be printed with some shops or printers.
 - Settings on the actual printer may be prioritized in some cases. Check the date printing settings on your printer.
 - Do not set date printing on pictures onto which 'DATE STAMP' (P.66) is applied, otherwise date will be printed twice.

You can view pictures on a TV screen by connecting your camera to your TV with the supplied AV cable.

Preparations: ● Turn off both camera and TV.

- Set the TV aspect (P.22).



If your TV has an SD memory card slot, you can view still pictures by inserting a card directly.

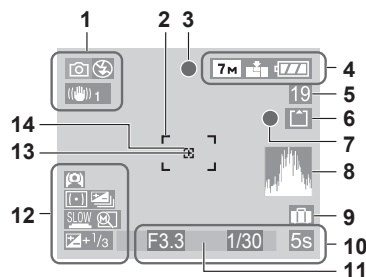
* Pictures may not be viewable from some MultiMediaCards.

Note

- Do not use any other AV cables except the supplied one.
- You can view pictures on TVs in other countries (regions) which use the NTSC or PAL system when you set 'VIDEO OUT' in SETUP menu.
- Pictures can only be displayed on TV by using [TV] mode.
- Some televisions may cut off the edges of pictures, or not display them full screen. Pictures rotated to portrait may be blurred slightly.
- Change picture mode settings on TV if aspect ratios are not displayed correctly on widescreen or high-definition televisions.
- Also consult TV operating manual.
- If problems such as picture flickering occur, set 'VIDEO OUT' (P.22) to 'PAL'.

1 List of LCD monitor displays

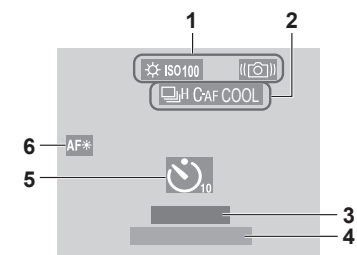
In recording



- 1 Recording mode (P.13)*¹
 Flash (P.36)
 Optical image stabilizer (P.39)
- 2 AF area (P.54)
- 3 Focus (P.25)
- 4 Picture size (P.52)
 Quality*² (P.53)
 Battery capacity (P.25)
- 5 Number of recordable pictures*³ (P.92)
- 6 Save destination (P.26)
- 7 Recording state
- 8 Histogram (P.33)

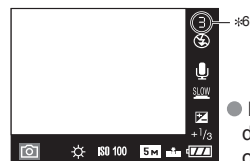
- 9 Travel date (P.48)*⁴
- 10 F3.3 Aperture value (P.25)
 1/30 Shutter speed (P.25)
 ISO Intelligent ISO mode (P.46)
 5s Elapsed recording time (P.47)
- 11 Current date/time
 Zoom (P.27) T 1X
- 12 High angle mode (P.34)
 Power LCD (P.34)
 Metering mode (P.53)
 SLOW Slow shutter (P.56)
 Auto bracket*⁵ (P.38)
 +1/3 Exposure compensation (P.38)
 Zoom Resume (P.20)
- 13 Spot metering target (P.53)
- 14 Spot AF area (P.54)

- CLIPBOARD mode (P.58)
^{*1} Clipboard recording mode
^{*4} Clipboard playback transfer guide
- MOTION PICTURE mode (P.47)
^{*2} 30fps VGA 10fps VGA 30fps VGA 10fps VGA 30fps 16:9 10fps 16:9
^{*3} Available recording time XXmXXs



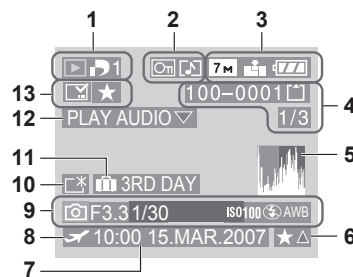
- 1 White balance (P.50)
 ISO 100 ISO sensitivity (P.51)
 ISO MAX 400 / ISO MAX 800 / ISO MAX 1250 ISO LIMIT
- 2 Jitter alert (P.24)
 BURST Burst mode (P.54)
 C.A.F Continuous AF (P.55)
 COOL Colour mode (P.57)
 Audio recording (P.53)
- 3 Travel elapsed days (P.48)
- 4 Age in years/months (P.42)
- 5 Self-timer mode (P.35)
- 6 AF assist lamp (P.56)
 TELE Tele Macro (P.46)

- *⁵ DMC-TZ3 only.
- *⁶ Displays available pictures/time (sec) remaining.
 ('+999' displayed if 1000 pictures/seconds or more.)



● Icons can also be displayed on edge of screen.*⁶ (P.33)

In playback

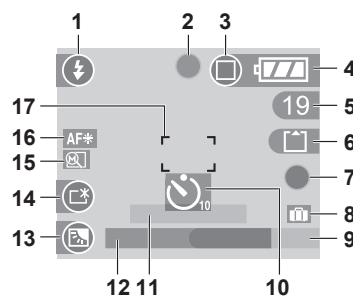


- 1 PLAYBACK mode*¹ (P.13)
 Number of DPOF prints (P.68)
- 2 Protected picture (P.69)
 Picture with audio/Motion pictures (P.62)
- 3 Picture size (P.52)
 Quality*² (P.53)
 Battery capacity (P.25)
- 4 100-0001 Folder/File number
 Save destination (P.26)
 1/3 Picture number/Total pictures

- 5 Histogram (P.33)
 Cable disconnection warning icon (P.76)
- 6 Favourites settings*³ (P.65)
- 7 Recorded date and time
- 8 Destination settings (P.49)
- 9 Recording information*⁴
 1 month 10 days Age in years/months (P.42)
- 10 Power LCD (P.34)
- 11 Travel elapsed days (P.48)
- 12 Audio playback*⁵ (P.62)
- 13 Date stamp display*⁶ (P.66)
 Favourites (P.65)

- CLIPBOARD mode (P.58)
^{*1} Clipboard playing mode
^{*4} Clipboard recording transfer guide
^{*6} Zoom mark
- MOTION PICTURE mode (P.62)
^{*2} 30fps VGA 10fps VGA 30fps VGA 10fps VGA 30fps 16:9 10fps 16:9
^{*3} Elapsed playback time XXmXXs
^{*5} PLAY MOTION PICTURE

In SIMPLE MODE



- 1 Flash mode (P.36)
- 2 Focus (P.28)
- 3 Picture mode (P.29)
 Jitter alert (P.24)

- 4 Battery capacity (P.25)
- 5 Number of recordable pictures (P.92)
- 6 Save destination (P.26)
- 7 Recording state
- 8 Travel date (P.48)
- 9 Backlight compensation BACKLIGHT (P.28)
- 10 Self-timer mode (P.35)
- 11 Travel elapsed days (P.48)
- 12 Current date/time
 Zoom (P.27) T 1X
 Destination settings (P.49)
- 13 Backlight compensation (P.28)
- 14 Power LCD (P.34)
- 15 Zoom Resume (P.20)
- 16 AF assist lamp (P.56)
 TELE Tele Macro (P.46)
- 17 AF area (P.54)

2 Message displays

Meanings of and required responses to major messages displayed on LCD monitor.

THIS MEMORY CARD IS LOCKED

- Release using the write-protect switch on the SD memory card or SDHC memory card. (P.26)

NO VALID PICTURE TO PLAY

- Take pictures, or insert a different card already containing pictures.

THIS PICTURE IS PROTECTED

- Release the protection before deleting, etc. (P.69)

SOME PICTURES CANNOT BE DELETED/THIS PICTURE CANNOT BE DELETED

- Non-DCF images (P.90) cannot be deleted.
→ Save all necessary data to computer (or other device), and 'FORMAT' (P.73) card to delete.

NO ADDITIONAL DELETE SELECTIONS CAN BE MADE

- The number of pictures that can be deleted at once has been exceeded.
- More than 999 pictures have been set as 'FAVORITE'.
- The number of pictures that can be date stamped at once has been exceeded.

CANNOT BE SET ON THIS PICTURE

- DPOF settings cannot be made for non-DCF images (P.90).

PLEASE TURN CAMERA OFF AND THEN ON AGAIN

- Force has been applied to lens (or other component) and camera could not operate correctly.
→ Turn on power again.
(Consult place of purchase if display still remains)

SOME PICTURES CANNOT BE COPIED/COPY COULD NOT BE COMPLETED

- Pictures cannot be copied in following cases.
 - Picture of same name already exists in copy destination.
 - File is not of DCF standard (P.90).
 - Picture taken or edited on a different device.

BUILT-IN MEMORY ERROR FORMAT BUILT-IN MEMORY?

- Displayed when formatting built-in memory via computer, etc.
→ Reformat directly using camera (P.73).

MEMORY CARD ERROR FORMAT THIS CARD?

- Format cannot be recognised on this camera.
→ Save all necessary data to computer (or other device), and 'FORMAT' (P.73).

MEMORY CARD ERROR PLEASE CHECK THE CARD

- Access to card has failed.
→ Insert card again.

MEMORY CARD ERROR MEMORY CARD PARAMETER ERROR

- Card is not of SD standard. Only SDHC memory cards can be used for capacities of 4GB or greater.

READ ERROR PLEASE CHECK THE CARD

- Data read has failed.
→ Check whether card has been inserted correctly (P.15).

WRITE ERROR PLEASE CHECK THE CARD

- Data write has failed.
→ Turn off power and remove card, before re-inserting and turning on power again.
- Card may possibly be damaged.

MOTION RECORDING WAS CANCELLED DUE TO THE LIMITATION OF THE WRITING SPEED OF THE CARD

- If 'PICT.MODE' is set to '30fps VGA' or '30fps 16:9', use a card of at least 10 MB/s (as marked on packaging, etc). (P.47)
- Motion picture recording may be automatically terminated with certain cards.

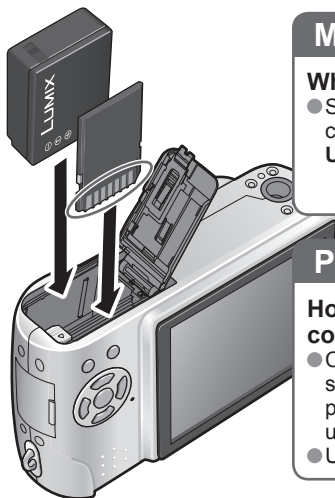
A FOLDER CANNOT BE CREATED

- Folder numbers in use have reached 999 (P.75).
→ Save all necessary data to computer (or other device), and 'FORMAT' (P.73).
Folder number is reset to 100 when performing 'NO.RESET' (P.22).

PICTURE IS DISPLAYED FOR 4:3 TV/PICTURE IS DISPLAYED FOR 16:9 TV

- AV cable is connected to camera.
 - To remove message immediately → Press 'MENU/SET'.
 - To change aspect ratio → Change 'TV ASPECT' (P.22).
- USB cable is only connected to camera.
→ Message disappears when cable is also connected to another device (P.74, 76).

FAQ



Memory Card

Which cards can I use?

- See (P.15) for types, and (P.92) for recording capacities.

Using Panasonic cards is recommended.

Pictures

How can I easily send pictures to my computer?

- Connect the camera to your computer using the supplied USB cable (P.74) to copy (drag & drop) picture files to your computer hard disk. (You can also use the supplied software 'LUMIX Simple Viewer'.)
- Use a USB reader-writer.

Recording

Pictures appear dark or have poor colouring

- Adjust the exposure (P.38).
- Use W. BALANCE to adjust the colouring. (e.g. Use 'AWB' for fluorescent lighting and for incandescent lighting.) If this is still insufficient, try 'Setting white balance manually' 'SET' (P.50).



Printing

How do I get the date printed?

- Use DATE STAMP before printing (P.66). (Do not make date printing settings.)
- In shop: Make DPOF settings (P.68), and request printing 'with dates'.
- With printer: Make DPOF settings (P.68), and use a printer compatible with date printing.
- With supplied software (P.11): Select 'with dates' within print settings.



Try checking these items (P.84-89) first.
(Restoring menu settings to default values may solve certain problems.
Try using 'RESET' in SETUP menu (P.22).)

Battery, power

Camera does not work even if power is turned on.

- Battery is not inserted correctly (P.15), or needs recharging (P.14).

LCD monitor shuts off even if power is turned on.

- Camera is set to 'POWER SAVE' or 'ECONOMY' (P.20).
→ Press shutter button halfway to release.
- Battery needs recharging (P.14).

Camera switches off as soon as power is turned on.

- Battery needs recharging (P.14).
- Camera is set to 'POWER SAVE' (P.20).
- Camera was left with power on (battery needs recharging).
→ Use 'POWER SAVE' or 'ECONOMY' (P.20).

Recording

Cannot record pictures.

- Mode dial is not set to a recording mode.
- Built-in memory/card is full. → Free space by deleting unwanted pictures (P.32).

Recorded pictures look white.

- Lens is dirty (fingerprints, etc).
→ Turn on power to extract lens barrel, and clean lens surface with a soft, dry cloth.
- Lens is foggy (P.10).

Recorded pictures are too bright/too dark.

- Pictures taken in dark locations, or bright subjects (snow, bright conditions, etc) occupy most of the screen. (Brightness of LCD monitor may differ from that of actual picture) → Adjust the exposure (P.38).

2-3 pictures are taken when I press the shutter button just once.

- Camera set to use 'AUTO BRACKET' (DMC-TZ3 only) or 'BURST' in REC menu.

Focus not aligned correctly.

- Not set to mode appropriate for distance to subject. (Focus range varies according to recording mode.)
- Subject outside of focus range.
- Caused by jitter or subject movement (P.39, 46).

Recorded pictures are blurred. Optical image stabilizer ineffective.

- Shutter speed is slower in dark locations and Optical image stabilizer is less effective.
→ Hold camera firmly with both hands, keeping arms close to body (P.24).
- Use a tripod and the self-timer (P.35) when using 'SLOW SHUTTER' (P.56).

Recording (continued)

Recorded pictures appear coarse, or there is interference.

- ISO sensitivity is high, or shutter speed is low.
(Default SENSITIVITY setting is 'AUTO' – interference may appear with indoor pictures.)
→ Lower 'SENSITIVITY' (P.51).
→ Set 'COL. MODE' to 'NATURAL' (P.57)
→ Take pictures in brighter locations.
- Camera set to 'HIGH SENS.' scene mode (P.44).
(Picture becomes slightly coarser in response to high sensitivity)

Brightness or colouring of recorded picture different from real life.

- Taking pictures under fluorescent lighting may require a faster shutter speed and result in slightly changed brightness or colouring, but this is not a fault.

Reddish vertical line (smear) appears during recording.

- This is a characteristic of CCD and may appear if subject contains brighter areas. Some blurring may occur around these areas, but this is not a fault.
(This will be recorded in motion pictures, but not in still pictures.)



Motion picture recording stops midway.

- Using MultiMediaCard (not compatible with motion picture recording).
- 'PICT. MODE' set to '30fps VGA' or '30fps 16:9' (P.47).
→ Use a card of at least 10MB/s (as marked on packaging, etc).
- With some cards, access display may appear briefly after recording, and recording may end midway.

LCD monitor

Monitor sometimes shuts off even though power is on.

- Camera set to 'ECONOMY' (P.20).
(LCD monitor shuts off during flash recharging)
- After recording, monitor shuts off until next picture can be recorded.
(Maximum built-in memory usage approx. 6 sec)

Brightness is unstable.

- Aperture value is set while shutter button is pressed halfway.
(Does not affect recorded picture.)

Monitor flickers indoors.

- Monitor may flicker after turning on (prevents influence from fluorescent lighting).

Monitor is too bright/too dark.

- Adjust LCD monitor brightness (P.20).
- Camera set to 'POWER LCD' or 'HIGH ANGLE' (P.34).
- Monitor may darken when internal temperature is low. Monitor will brighten again when temperature rises.

Black/blue/red/green dots or interference appears. Monitor looks distorted when touched.

- This is not a fault, and will not be recorded on the actual pictures, so there is no need to worry.

LCD monitor (continued)

Date/age is not displayed.

- Current date, TRAVEL DATE (P.48), and ages in 'BABY' (P.42) and 'PET' (P.44) scene modes are only displayed for approx. 5 sec after start-up, setting changes, or mode changes. They cannot be always displayed.

Flash

No flash emitted.

- Flash set to 'FORCED OFF' (P.36).
- When set to 'AUTO' (P.36), flash may not be emitted in certain conditions.
- Flash cannot be emitted in MOTION PICTURE mode (P.47), or the 'SCENERY', 'NIGHT SCENERY' (P.42), 'FIREWORKS', 'STARRY SKY', 'AERIAL PHOTO', and 'HIGH SENS.' (P.44) scene modes.

Two flashes emitted

- Red-eye reduction is active (P.36).
(Flashes twice to prevent eyes appearing red.)

Playback

Pictures have been rotated.

- 'ROTATE DISP.' is set to 'ON' (P.66).
(Automatically rotates pictures from portrait to landscape. Some pictures taken facing up or facing down may be interpreted as being portrait.)
→ Rotate with 'ROTATE DISP.' (P.66).

Cannot view pictures.

- Mode dial is not set to (P.36).
- No pictures in built-in memory or card (pictures played from card if inserted, from built-in memory if not).

Folder/file number displayed as '-'. Picture is black.

- Picture edited on computer or taken on different device.
- Battery removed immediately after picture taken, or picture taken with low battery.
→ Use 'FORMAT' to delete (P.73).

Incorrect date displayed in calendar playback.

- Picture edited on computer or taken on different device.
- 'CLOCK SET' is incorrect (P.16).
(Incorrect date may be displayed in calendar playback on pictures copied to computer and then back to camera, if computer and camera dates differ.)

Depending on the subject, an interference fringe may appear on the screen.

- This is called moire. This is not a malfunction.

TV, computer, printer

No image appears on TV. Image blurred or not coloured.

- Not connected correctly (P.79).
- TV input setting not set to auxiliary input.
- 'VIDEO OUT' not set to 'PAL' (P.22).

TV screen display different to LCD monitor.

- Aspect ratio may be incorrect or edges may be cut off with certain televisions.

Cannot play motion pictures on TV.

- Card is inserted into TV.
→ Connect with AV cable (supplied) and play on camera (P.79).

Picture is not displayed on full TV screen.

- Check 'TV ASPECT' settings (P.22).

Cannot send pictures to computer.

- Not connected correctly (P.74).
Check whether computer has recognised camera. (See separate 'PC connection')


Computer does not recognise card (only reads built-in memory).

- Disconnect USB cable and reconnect with card in place.


I want to play computer pictures on my camera.

- Use the supplied software PHOTOfunSTUDIO-viewer- to copy pictures from computer to camera. To save to clipboard, use software to copy from computer to card, then copy to clipboard folder with 'COPY' (P.73) in PLAY menu.

Cannot print when connecting to printer.

- Printer not compatible with PictBridge.
- Mode dial not set to .

Edges cut off pictures when printing.

- Release any trimming or edgeless printing settings on printer before printing. (Consult printer operating manual.)
- Pictures taken on  'ASPECT RATIO' (P.51).
→ If printing in shop, check if 16:9 sizes can be printed.

Others


Menu not displayed in desired language.

- Change 'LANGUAGE' setting (P.22).

Camera rattles if shaken.

- This sound is made by the lens movement and is not a fault.

Cannot set 'AUTO REVIEW'.

- Cannot be set when any of the following are in use: 'AUTO BRACKET' (DMC-TZ3 only) (P.38), 'BURST' (P.54), 'SELF PORTRAIT' scene mode (P.42), MOTION PICTURE mode  (P.47), or 'AUDIO REC.' (P.53).

Red lamp illuminated when pressing shutter button halfway in dark locations.

- 'AF ASSIST LAMP' set to 'ON' (P.56).

AF ASSIST LAMP is not illuminated.

- 'AF ASSIST LAMP' is set to 'OFF' (P.56).
- Not illuminated in bright locations or when using 'SCENERY', 'NIGHT SCENERY', 'SELF PORTRAIT' (P.42), 'FIREWORKS', or 'AERIAL PHOTO' (P.44) scene modes.

Camera is hot.

- Camera may become a little warm during use, but this does not affect performance or quality.

Lens makes a clicking noise.

- When brightness changes, the lens may make a clicking noise and the monitor brightness may also change, but this is due to aperture settings being made. (Does not affect recording.)

Clock is incorrect.

- Camera has been left for a long period.
→ Reset the clock (P.16).
(Date will be set to '0.0.0 0:00' for pictures if clock is not set.)
- Long time was taken to set clock (clock behind by this amount).

When using zoom, picture becomes slightly warped and the edges of the subject become coloured.

- Pictures may be slightly warped or coloured around the edges, depending on the zoom ratio, but this is not a fault (P.27).

File numbers are not recorded in sequence.

- File numbers are reset when new folders are created (P.75).

File numbers have jumped backwards.

- Battery was removed/inserted with power on.
(Numbers may jump backwards if folder/file numbers are not correctly recorded.)

4 Usage cautions and notes

In the event of abnormal operation (e.g. if the unit emits smoke or an unusual smell), immediately stop operating the unit and consult the Panasonic Customer Care Centre on 132600.

When in use

Camera may become warm if used for long periods of time, but this is not a fault.

- To avoid jitter, use a tripod and place in a stable location.
(Especially when using telescopic zoom, lower shutter speeds, or self-timer)
- **Keep the camera as far away as possible from electromagnetic equipment (such as microwave ovens, TVs, video games etc.).**
 - If you use the camera on top of or near a TV, the pictures and sound on the camera may be disrupted by electromagnetic wave radiation.
 - Do not use the camera near cell phones because doing so may result in noise adversely affecting the pictures and sound.
 - Recorded data may be damaged, or pictures may be distorted, by strong magnetic fields created by speakers or large motors.
 - Electromagnetic wave radiation generated by microprocessors may adversely affect the camera, disturbing the pictures and sound.
 - If the camera is adversely affected by electromagnetic equipment and stops functioning properly, turn the camera off and remove the battery or disconnect AC adaptor (DMW-AC5G; optional). Then reinsert the battery or reconnect AC adaptor and turn the camera on.

Do not use the camera near radio transmitters or high-voltage lines.

- If you record near radio transmitters or high-voltage lines, the recorded pictures and sound may be adversely affected.
- Do not extend the supplied cord or cable.
- Do not allow camera to come into contact with pesticides or volatile substances (can cause surface damage or coating to peel).
- Only use files from other devices if compatible with Design Rule for Camera File system (Pictures are based on DCF (Design rule for Camera File system) and Exif (Exchangeable Image File Format) standards, by Japan Electronics and Information Technology Industries Association (JEITA)).

Caring for your camera

- Disconnect battery/AC adaptor (DMW-AC5G, optional).
- Do not use benzene, thinners, alcohol, kitchen detergent, or chemically treated cloth (can cause surface damage or coating to peel).
- Wipe away dust or fingerprints with soft, dry cloth. Clear stubborn stains or rain/sea water stains with a thoroughly wrung cloth, before wiping with a dry cloth.

When not using for a while

- Remove battery and card (ensure that battery is removed to prevent damage through over-discharge).
- Do not leave in contact with rubber or plastic bags.
- Store together with a drying agent (silica gel) if leaving in drawer, etc. Store batteries in cool (15 °C-25 °C) places with low humidity (40 %-60 %) and no major temperature changes.
- Charge battery once per year and use completely once before storing again.

Memory cards

- To prevent damage to cards and data
 - Avoid high temperatures, direct sunlight, electromagnetic waves, and static electricity.
 - Do not bend, drop, or expose to strong impacts.
 - Do not touch connectors on reverse of card or allow them to become dirty or wet.
- When disposing of/transferring memory cards
 - If using the 'format' or 'delete' functions on your camera or computer, this only changed the file management information, and does not completely delete the data from within the memory card. When disposing of or transferring your memory cards, we recommend physically destroying the memory card itself, or using commercially available computer data erasing software to completely delete the data from the card. Data within memory cards should be managed responsibly.

Battery

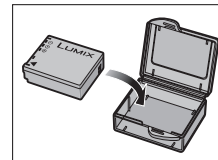
- Store battery in battery carrying case after use.
- Do not use if damaged or dented (especially connectors), e.g. by dropping (can cause faults).
- Estimated recording capacity of 270 [300 *1] pictures (P.14) is based on the following CIPA *2 standards.

*1 DMC-TZ2

CIPA standards:

- Using Panasonic SD memory card (16MB)
- Temperature 23 °C, humidity 50 %
- NORMAL PICTURE mode
- LCD monitor ON
- STABILIZER (MODE1)
- First picture taken 30 sec after power turned on
- 1 picture taken per 30 sec
- Full flash used for every other picture
- Zoom operation for each picture (max. W → max. T, or max. T → max. W)
- Power turned off after each 10 pictures, battery allowed to cool

*2 CIPA = Camera & Imaging Products Association



- When charging
 - Remove any dirt on connectors with dry cloth.
 - Keep at least 1 m away from AM radio (may cause radio interference).
 - Noises may be emitted from inside, but this is not a fault.
 - Always remove from mains socket after charging (up to 0.1 W consumed if left in place).

- SDHC Logo is a trademark.
- Leica is a registered trademark of Leica Microsystems IR GmbH.
- Elmar is a registered trademark of Leica Camera AG.
- Other names, company names, and product names printed in these instructions are trademarks or registered trademarks of the companies concerned.

5 Recording picture/time capacity

Figures given are estimates. May vary according to conditions, card type, and subject.
Recording capacities/times displayed on LCD monitor may not be reduced regularly.

■ Recording picture capacity (still pictures)

Varies according to following settings.

● ASPECT RATIO (4:3 3:2 16:9) (P.51)

● PICT.SIZE (0.3MEZ-7M) (P.52)

● QUALITY (picture quality high standard) (P.53)

*1: DMC-TZ3

*2: DMC-TZ2

ASPECT RATIO		4:3															3:2								16:9							
PICT.SIZE		7M*1 (3072 × 2304)		6M*2 (2816 × 2112)		5M EZ*1 (2560 × 1920)		3M EZ (2048 × 1536)		2M EZ (1600 × 1200)		1M EZ (1280 × 960)		0.3M EZ (640 × 480)			7M*1 (3216 × 2144)		6M*2 (2976 × 1984)		4.5M EZ (2560 × 1712)		2.5M EZ (2048 × 1360)		6M*1 (3328 × 1872)		5.5M*2 (3072 × 1728)		3.5M EZ (2560 × 1440)		2M EZ (1920 × 1080)	
QUALITY																																
Built-in memory		2	6	3	7	4	9	7	15	12	24	19	36	61	100		3	6	3	7	5	10	8	16	3	7	4	8	6	12	11	22
Memory card	16 MB	3	7	4	8	5	10	8	16	13	27	21	40	68	110		3	7	4	8	5	12	9	18	3	7	4	10	7	14	12	25
	32 MB	7	16	9	19	11	23	18	36	29	58	45	85	145	230		8	16	9	19	13	26	20	40	9	18	10	21	15	31	27	53
	64 MB	16	34	20	40	24	48	38	75	61	120	93	175	290	480		16	35	20	40	27	54	43	83	19	35	22	45	32	64	57	105
	128 MB	35	69	41	82	50	99	78	150	125	240	190	350	600	970		35	71	42	82	56	110	88	165	35	79	46	92	66	130	115	220
	256 MB	68	135	81	160	98	190	150	290	240	470	370	690	1170	1900		70	140	82	160	110	210	170	330	78	150	91	180	130	250	230	430
	512 MB	135	270	160	320	195	380	300	590	480	940	730	1370	2320	3770		140	270	160	320	210	430	340	650	155	300	180	350	250	510	450	860
	1 GB	270	540	320	640	390	770	600	1180	970	1880	1470	2740	4640	7550		280	550	320	640	440	860	680	1310	310	610	360	710	520	1020	910	1720
	2 GB	550	1090	660	1270	790	1530	1220	2360	1920	3610	2920	5120	8780	12290		560	1110	660	1300	890	1700	1360	2560	630	1220	730	1420	1040	2040	1800	3410
	4 GB	1090	2150	1290	2510	1560	3010	2410	4640	3770	7090	5740	10050	17240	24130		1110	2190	1310	2560	1740	3350	2680	5020	1110	2410	1450	2800	2040	4020	3540	6700

● Extra optical zoom (P.27) can be used for picture sizes indicated with 'EZ' (except in 'HIGH SENS.' scene mode (P.44)).

■ Recording picture capacity (still pictures)

ASPECT RATIO		SIMPLE MODE			
PICT.SIZE					
QUALITY		*1	*2		
Built-in memory		2	3	16	100
Memory card	16 MB	3	4	18	110
	32 MB	7	9	40	230
	64 MB	16	20	83	480
	128 MB	35	41	165	970
	256 MB	68	81	330	1900
	512 MB	135	160	650	3770
	1 GB	270	320	1310	7550
	2 GB	550	660	2560	12290
	4 GB	1090	1290	5020	24130

■ Recording time capacity (motion pictures)

PICT.MODE		30fpsVGA	10fpsVGA	30fpsQVGA	10fpsQVGA	30fps16:9	10fps16:9
Built-in memory		—	—	23 sec	1 min 13 sec	—	—
Memory card	16 MB	6 sec	26 sec	26 sec	1 min 23 sec	5 sec	22 sec
	32 MB	17 sec	59 sec	59 sec	2 min 55 sec	14 sec	50 sec
	64 MB	39 sec	2 min	2 min	6 min	33 sec	1 min 46 sec
	128 MB	1 min 23 sec	4 min 10 sec	4 min 10 sec	12 min 20 sec	1 min 11 sec	3 min 35 sec
	256 MB	2 min 45 sec	8 min 10 sec	8 min 10 sec	24 min	2 min 20 sec	7 min
	512 MB	5 min 30 sec	16 min 20 sec	16 min 20 sec	47 min 50 sec	4 min 40 sec	14 min
	1 GB	11 min	32 min 50 sec	32 min 50 sec	1 hr 35 min	9 min 20 sec	28 min 10 sec
	2 GB	22 min 30 sec	1 hr 7 min	1 hr 7 min	3 hr 15 min	19 min 20 sec	57 min 30 sec
	4 GB	44 min 20 sec	2 hr 11 min	2 hr 11 min	6 hr 22 min	38 min	1 hr 53 min

PICT.MODE (P.47)

● Picture smoothness

(fps: frames per second)

30 fps	↔	10 fps
Smooth	↔	Less smooth*3

● Picture size

16:9	VGA	QVGA
Wide	Large	Small*3

*3 For e-mail attachments or longer recording

● A maximum of approx. 2 GB can be recorded in any one session.
(Screen display also up to 2 GB)

6 Specifications

Digital Camera: Information for your safety

Power Source	DC 5.1 V
Power Consumption	When recording: 1.7 W (DMC-TZ3)/1.4 W (DMC-TZ2) When playing back: 0.8 W
Camera effective pixels	● DMC-TZ3: 7,200,000 pixels ● DMC-TZ2: 6,000,000 pixels
Image sensor	● DMC-TZ3: 1/2.35" CCD, total pixel number 8,500,000 pixels ● DMC-TZ2: 1/2.33" CCD, total pixel number 7,390,000 pixels Primary colour filter
Lens	Optical 10 x zoom f=4.6 mm to 46 mm (35 mm film camera equivalent: 28 mm to 280 mm)/F3.3 to F4.9
Digital zoom	Max. 4 x
Extra optical zoom	Max. 15 x (DMC-TZ3)/Max. 13.8 x (DMC-TZ2)
Focus	Normal/Macro 9-area-focusing/3-area-focusing (High speed)/ 1-area-focusing (High speed)/1-area-focusing/Spot-focusing
Focus range	
Normal	50 cm (Wide)/2 m (Tele) to ∞
Macro/Simple/Motion picture/ Intelligent ISO/Clipboard	5 cm (Wide)/1 m (Tele) to ∞ (2 m unless max.T)
Scene mode	There may be difference in above settings.
Shutter system	Electronic shutter + Mechanical shutter
Motion picture recording	848 × 480 pixels*/640 × 480 pixels*/320 × 240 pixels (*Only when using an SD Memory Card) (30 or 10 frames/second with audio. The maximum recording time depends on the capacity of the built-in memory or the card.)
Burst recording	
Burst speed	● DMC-TZ3: 3 frames/second (High speed), 2 frames/second (Low speed), Approx. 2 frames/second (Unlimited) ● DMC-TZ2: Approx. 2 frames/second (Unlimited)
Number of recordable pictures	● DMC-TZ3: Max. 7 frames (Standard), max. 5 frames (Fine), Depends on the remaining capacity of the built-in memory or the card (Unlimited). ● DMC-TZ2: Depends on the remaining capacity of the built-in memory or the card.
ISO sensitivity	AUTO/100/200/400/800/1250 [HIGH SENS.] mode: 3200
Shutter speed	8 to 1/2000th [STARRY SKY] mode: 15 seconds, 30 seconds, 60 seconds Motion picture mode: 1/30th to 1/20000th
White balance	AUTO/Daylight/Cloudy/Shade/Halogen/White set
Exposure (AE)	AUTO (Programme AE) Exposure compensation (1/3 EV Step, -2 EV to +2 EV)
Metering mode	Multiple/Centre weighted/Spot
LCD monitor	● DMC-TZ3: 3.0" low-temperature polycrystalline TFT LCD (Approx. 230,000 pixels) (field of view ratio about 100 %) ● DMC-TZ2: 2.5" low-temperature polycrystalline TFT LCD (Approx. 207,000 pixels) (field of view ratio about 100 %)
Flash	Flash range: (ISO AUTO) Approx. 60 cm to 4.2 m (Wide) AUTO, AUTO/Red-eye reduction, Forced flash ON (Forced flash ON/ Red-eye reduction), Slow sync./Red-eye reduction, Forced OFF

Microphone	Monaural
Speaker	Monaural
Recording media	Built-in Memory (Approx. 12.7 MB)/SD Memory Card/SDHC Memory Card/ MultiMediaCard (Still pictures only)
Picture size	
Still picture	When the aspect ratio setting is [4:3] ● DMC-TZ3: 3072 × 2304 pixels / 2560 × 1920 pixels / 2048 × 1536 pixels / 1600 × 1200 pixels / 1280 × 960 pixels / 640 × 480 pixels ● DMC-TZ2: 2816 × 2112 pixels / 2048 × 1536 pixels / 1600 × 1200 pixels / 1280 × 960 pixels / 640 × 480 pixels When the aspect ratio setting is [3:2] ● DMC-TZ3: 3216 × 2144 pixels / 2560 × 1712 pixels / 2048 × 1360 pixels ● DMC-TZ2: 2976 × 1984 pixels / 2560 × 1712 pixels / 2048 × 1360 pixels When the aspect ratio setting is [16:9] ● DMC-TZ3: 3328 × 1872 pixels / 2560 × 1440 pixels / 1920 × 1080 pixels ● DMC-TZ2: 3072 × 1728 pixels / 2560 × 1440 pixels / 1920 × 1080 pixels
Motion pictures (*Only when using an SD Memory Card)	848 × 480 pixels* / 640 × 480 pixels* / 320 × 240 pixels
Quality	Fine/Standard
Recording file format	
Still Picture	JPEG (based on Design rule for Camera File system, based on Exif 2.21 standard)/DPOF corresponding
Still pictures with audio	JPEG (based on Design rule for Camera File system, based on Exif 2.21 standard) + QuickTime
Motion pictures	QuickTime Motion JPEG
Interface	Digital: USB 2.0 (Full Speed) Analogue video/audio: NTSC/PAL Composite (Switched by menu)/Audio line output (monaural)
Terminal	DIGITAL/AV OUT: Dedicated jack (8 pin) DC IN: Dedicated jack (2 pin)
Dimensions (excluding the projection part)	● DMC-TZ3: Approx. 105.0 mm (W) × 59.2 mm (H) × 36.7 mm (D) ● DMC-TZ2: Approx. 105.0 mm (W) × 59.2 mm (H) × 36.3 mm (D)
Mass	Excluding card and battery DMC-TZ3: Approx. 232 g/DMC-TZ2: Approx. 222 g With card and battery DMC-TZ3: Approx. 257 g/DMC-TZ2: Approx. 247 g
Operating temperature	0 °C to 40 °C
Operating humidity	10 % to 80 %

Battery charger

(Panasonic DE-A46A): Information for your safety

Output	CHARGE 4.2 V --- 0.8 A
Input	110 V to 240 V 50/60Hz, 0.2 A

Battery Pack (lithium-ion)


(Panasonic CGA-S007E): Information for your safety

Voltage/capacity	3.7 V 1000 mAh
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